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ABSTRACT

Two Emergency School Aid Act (ESSA)-funded compensatory education reading programs served 1900 Minneapolis students in desegregated schools during 1974-75. Both programs generally met their objectives for comprehension gain among disabled readers. Students in the ESAA Intermediate Reading Program achieved a median rate of about 3 grade-score months of comprehension gain for every month enrolled in the program. Students in the Junior High Reading Program made slightly less than 2 months gain per month enrolled if such students entered the program with pretest grade scores of 3.9 or less. For Junior High Program students entering with grade scores of 4.0-6.0, the median monthly gain rate was about 3. Differences among schools in gain rates are discussed in this report. Reading gains were measured using Gates-MacGinitie Primary C or Survey D comprehension tests. Both programs emphasized the use of audiovisual teaching machines, and commercial and Minneapolis-Schools-produced lessons usable with these machines. The frequency of use of various materials is reported. An evaluation of these programs was conducted by the Minneapolis Schools' Research and Evaluation Department. In the event that programs like these are funded in the future, the evaluator recommends (a) changes in pre-post testing procedure, including alternate forms and diagnostic-type tests; (b) use of a control-group evaluation design; (c) careful consideration of information needs among staff and funding agencies before beginning evaluation; (d) greater efforts to recruit both Native Americans and teachers with reading certification for staff positions. (Author/RC)

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The Intermediate and Junior High Reading Programs of the 1974-75 Minneapolis Emergency School Aid Act Project:

An Evaluation

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Ideas expressed in this report do not necessarily reflect the official position of the Minneapolis Public School Administration nor the Minneapolis School Board.

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The Intermediate and Junior High Reading Programs of the 1974-75 Minneapolis Emergency School Aid Act Project:

An Evaluation

Summary

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Two ESAA-funded compensatory-education reading programs served 1900 Minneapolis students in desegregated schools during 1974-75. Both programs generally met their objectives for comprehension gain among disabled readers. Students in the ESAA Intermediate Reading Program achieved a median rate of about 3 grade-score months of comprehension gain for every month enrolled in the Program. Students in the Junior High Reading Program made slightly less than 2 months gain per month enrolled if such students entered the Program with pretest grade scores of 3.9 or less. For Junior High Program students entering with grade scores of 4.0-6.0, the median monthly gain rate was about 3. Differences among schools in gain rates are discussed in this report. Reading gains were measured using Gates-MacGinitie Primary C or Survey D comprehension tests.	1-2 27-30 27 29 29 30-35 5-7
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May 1976 Research and Evaluation Department

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I express my gratitude also to the ESAA teachers and aides for their care and effort in providing student data and for their frankness in responding to questionnaires.

The Intermediate and Junior High Reading Programs of the 1974-75 Minneapolis Emergency School Aid Act Project:

An Evaluation

During 1974-75 the Minneapolis Schools were awarded $595,850 under the provisions of the Emergency School Aid Act (ESAA) to operate two reading programs. The ESAA Intermediate Reading Program served 989 students in grades 4-6 in 18 public elementary schools. The ESAA Junior High Reading Program served 911 students in grades 7-9 in 8 public junior highs (758 students) and in 5 nonpublic schools (153 students).

The Emergency School Aid Act (1972) has been the federal government's primary effort to help solve the instructional and human relations problems of school districts undergoing planned desegregation. Accordingly, the Minneapolis ESAA reading programs were placed in public elementary and junior high schools desegregated as of fall, 1974. (Elementary schools were desegregated in fall, 1974; junior highs had been desegregated in fall, 1973. See Minneapolis Public Schools' desegregation-plan summary referenced on p. 41 of this report.)

Both Minneapolis ESAA reading programs were similar in their objectives, materials, methods, and organization. Both programs sought to improve reading comprehension among students with poor reading skills. Both provided the same teaching machines and many of the same machine-usable reading materials. Both employed reading teachers and teacher aides to work in participating schools. The same pre-service and in-service training sessions were attended by teachers and aides of both programs. Each program was coordinated by a full-time lead reading resource teacher, who helped teachers and aides implement the program in their respective schools.

Schools participating in the 1974-75 ESAA reading programs. Grades 4-6 in the following 18 elementary schools participated in the Intermediate Reading Component: Anwatin, Bancroft, Bremer, Bryn Mawr, Clinton, Corcoran, Field, Greeley, Hawthorne, Holland, Irving, Lincoln Intermediate Center, Lowell, Madison, Northrop, Shingle Creek, Webster, and Whittier.

The Junior High Reading Program served students in the following 8 public junior highs: Anthony, Bryant, Franklin, Jefferson, Jordan, Olson, Phillips, and Ramsey. The Junior High Program also served nonpublic school students as follows: 7th and 8th graders at Ascension, Holy Rosary[1], Incarnation,

[1]The Junior High Program at Holy Rosary also served eight 6th grade students. These students were considered part of the Junior High Program for data analysis purposes.

and St. Stephen; and 9th graders at Regina High.

Background: The Minneapolis Schools' ESAA Project

The Intermediate and Junior High reading programs constituted about half of the entire 1974-75 Minneapolis Schools' ESAA Project. As described in the Project's application for funding (Emergency School Aid Act Office, Minneapolis Public Schools, 1974), the Minneapolis ESAA Project had seven components and a total awarded budget of $1,247,256. Of this total, $327,218 (26%) was allotted for the Intermediate Reading Program component. Another $234,531 (19%) was allotted for reading in public junior highs; and $34,101 (3%), for grade 7-9 reading in nonpublic schools. While budgeted in the Project application as separate components, public and nonpublic junior high level reading were identical in their objectives and organization, and had the same lead reading resource teacher. The public and nonpublic junior high level reading components are therefore considered in this report to be a single Junior High Reading Program.

The fourth and fifth components of the 1974-75 Minneapolis ESAA Project provided Desegregation Counselor Aides for public elementary and secondary schools, respectively. These ESAA Counselor Aides worked to prevent or resolve various interpersonal conflicts that might arise in their desegregated schools.

The sixth component provided math aides for secondary schools.

The seventh component, administration, also included $16,000 budget for project evaluation. The evaluation of selected components of the ESAA Project was conducted by a research psychologist on the staff of the Minneapolis Schools' Research and Evaluation Department.

The development and partial demise of the Minneapolis ESAA Project, 1973-1975. The ESAA Project began in Minneapolis Schools in fall, 1973. The development of this project paralleled the implementation of the Minneapolis desegregation plan. During 1973-74 Minneapolis received $535,441 in ESAA funds for reading, math, and counselor aide programs in the newly desegregated junior highs (and in the corresponding grades of selected nonpublic schools serving multiracial student bodies). The 1973-74 junior high counselor aide, math, and reading programs were described and evaluated by the present evaluator (Higgins, 1974a, 1974b, and 1974c).

In fall, 1974, the planned desegregation of Minneapolis elementary schools was carried out. Simultaneously, new ESAA-funded Intermediate

Reading and Elementary Desegregation Counselor Aide programs were implemented in these desegregating elementary schools.

At the same time that the ESAA Project was extended to elementary schools, the Minneapolis ESAA math program was sharply curtailed. During 1973-74 the ESAA Mathematics Component served 1200 junior high students with innovative materials and 25 teacher aides. In 1974-75 the ESAA Project funded only 9 teacher aides for math and no math materials.

The Minneapolis Schools sought to maintain and extend its ESAA Project for 1975-76, the third year of operation. In July, 1975, however, proposed reading and math programs for elementary and secondary students were rejected for funding by the federal ESAA administration.

The Minneapolis ESAA Project continues in 1975-76 with only the elementary and secondary Desegregation Counselor Aides Program relatively intact.

The relationship between ESAA and Title I assistance. Most of the schools participating in the ESAA reading programs also received federal aid under Title I of the Elementary and Secondary Education Act. During 1974-75 all of the ESAA reading program schools except Field, Shingle Creek, Anthony, Olson, Ramsey, and Regina were also Title I schools.

Title I funds are used to aid the compensatory education of disadvantaged students. ESAA funds, to aid desegregating school districts, are not necessarily earmarked for compensatory education, although they may be so used. In Minneapolis, the ESAA Project from 1973 to 1975 did, however, emphasize compensatory reading instruction. ESAA students in a Title I school were presumably eligible for Title I assistance if they were, as expected, among the school's poorest achieving readers. If a school had both a Title I reading program and an ESAA reading program, a given ESAA student might have been served by both programs. The extent to which ESAA students were in fact served by Title I reading programs has not been determined. Any such duplication of services was probably most rare at the junior high level, where Title I programs were least well funded.

The Organization of This Evaluation Report

The following sections of this report provide answers to four questions about the 1974-75 ESAA Intermediate and Junior High reading programs:

1. What were the objectives of each program?
2. How did each program operate? The answer to this question includes description of each program's curriculum, students, staff, and day-to-day operation.

3. Was each program effective in meeting its objectives? Included in the answer to this question is a discussion of factors possibly related to differences among students and schools in reading gain rate.

4. What recommendations should be made concerning the improvement of these reading programs, if the same or similar programs are again implemented in Minneapolis?

Sources of information regarding the ESAA Reading programs. Most of the information used to prepare this evaluation report was obtained from paper-and-pencil instruments completed by the ESAA teachers and aides in each school. For each student in the Intermediate and Junior High programs, and teacher and/or aides filled out an appropriate Student Information Form. The Intermediate form is reproduced herein as Appendix A; the Junior High form, as Appendix B. ESAA teachers and aides also answered questionnaires describing their own job, their background, the ESAA reading program in their school, and their suggestions for improvement of the ESAA program. The ESAA Reading Teacher Questionnaire and the ESAA Reading Aide Questionnaire are reproduced as Appendices C and D. For a number of items on each questionnaire, the responses of the total teacher or aide group have been tabulated on the sample form.

THE OBJECTIVES OF THE ESAA READING PROGRAMS

Both reading programs were designed to improve reading comprehension among poor readers in each participating school.

The Objectives of the Intermediate Reading Program

The Project application (ESAA Office, Minneapolis Public Schools, pp. 53-54) expected "ESAA-eligible" students in grades 4-6 to show the following gains in reading comprehension when they actually received ESAA-funded reading instruction:

1. "25% will make 1.4 [or more] months gain for each month in the program."
2. "25% will make 1.0-1.3 months gain for each month in the program."
3. "The median gain for all students served in the program will be 1.0 times the number of months in the program."

An implied objective therefore was that 50% or fewer students would make less than 1.0 months gain for each month in the program.

Eligibility for instruction. On p. 53 of the Project application, eligibility for ESAA instruction was defined in terms of the discrepancy between a student's actual grade placement and that student's grade score on a reading comprehension test. Fourth graders needed to be at least 1.5 grade-score years below actual grade placement; 5th and 6th graders needed to be at least 2 years below grade level in their reading achievement. These criteria for ESAA eligibility proved unworkable in practice, however, generating too few students at each school. The criteria for eligibility were therefore changed early in 1974-75 to include any student one or more years below grade in reading.

Testing. Reading gain was to be measured using "the appropriate form of the Gates-MacGinitie Comprehension Test" as both pretest and posttest (application for funds, p. 54). The actual comprehension tests used were from either Primary C, Form 2, or Primary C, Form 1, of the Gates-MacGinitie Reading Tests. Both tests, supposedly having the same difficulty level, were originally designed for use with 3rd grade students.

Most of the Intermediate Program students took the Comprehension Test of Primary C, Form 2 (hereafter abbreviated as C2) for both pretest and posttest. The evaluator had, however, in a previous year's ESAA evaluation (Higgins, 1974c, pp. 21, 26) recommended the use of alternate, equivalent forms for the testing of reading gain. The staff of the Intermediate

Reading Program partially implemented this recommendation in spring, 1975, by using the C1 as a posttest for some students in some schools.

The Objectives of the Junior High Reading Program

The Junior High Reading Program was aimed at the poorest-reading students in each ESAA school. In each ESAA public junior high, the lowest-achieving 125 "readers" were the target of the Reading Program. In the nonpublic ESAA schools, smaller numbers of poor readers were selected for the program. Each student selected for the ESAA Reading Program was supposed to be two or more reading-comprehension years below actual grade placement, at the start of the 1974-75 school year. Also, no student was to be above the 6.0 grade level in pretest reading comprehension.

The Junior High Program divided students into two groups, depending on their pretest comprehension grade score, and then assigned a different set of reading gain objectives to each group (see Project application, pp. 17-18):

Objective Set I: students entering the Junior High Program with reading-comprehension grade-equivalent scores of 3.9 or less were designated Objective I students and were expected to show the following gains in reading comprehension:

1. "30% will make 2.5 [or more] months gain for each month in the program."
2. "15% will make 1.7 to 2.4 months gain for each month in the program."
3. "30% will make 1.0 to 1.6 months gain for each month in the program."
4. "The median gain for all students enrolled in the program will be 1.5 times the normal number of months in the program." The evaluator interpreted the fourth objective to mean that Objective I students would gain 1.5 or more grade-equivalent-score months for every calendar month in the program.

Objective Set II: students entering the Junior High Program with reading-comprehension grade-equivalent scores of 4.0 to 6.0, but at least two achievement years below their actual grade placement, were designated Objective II students and were expected to show the following gains in reading comprehension:

1. "30% will make 4.0 [or more] months gain for each month in the program."
2. "15% will make 2.7 to 3.9 months gain for each month in the program."
3. "30% will make 1.0 to 2.6 months gain for each month in the program."
4. "The median gain for all students involved in the program will be 2.5 times the normal number of months in the program." Again, the evaluator interpreted this objective to mean that Objective II students would gain 2.5 or more grade-equivalent-score months for every calendar

month in the program.

Eligibility for instruction. The application for funds stated that the Junior High Reading Program would serve "students in each school who are 2 or more years below grade level in reading (p. 14) ." The fact that objectives were not stated for junior high students with grade scores greater than 6.0 implied that such students were not eligible for the Junior High Reading Program.

Testing. The measurement of Junior High Program reading objectives was conducted using two tests. For Objective I students (pretest grade-score reading comprehension level of 0-3.9) reading gains were measured using the same Gates-MacGinitie Frimary C, Form 2 Comprehension Test used in the Intermediate Program. For Objective II students (4.0-6.0 pretest comprehension level) the Gates-MacGinitie Survey D, Form 2 or Form 2M, Comprehension Test was used for both pretest and posttest. The D2 and D2M tests had the same items but differed in the way students recorded their answers. Using D2, students wrote their answers on the test booklet; using D2M, students wrote on a separate machine-scorable answer sheet.

Unlike the Intermediate Program, in no case did Junior High Program students use alternate, equivalent forms for pretest and posttest.

THE OPERATION OF THE ESAA READING PROGRAMS

This discussion includes a description of each program's instructional approaches; a description of the students and their method of selection for each program; and a description of each program's day to day administration within the school.

Instructional Approaches Common to Both Reading Programs

Instruction in both the Intermediate and Junior High reading programs emphasized the use of innovative curriculum materials usable with the Dorsett M-86 A-V Teaching Machine. The Dorsett machine, resembling a small television set, contains a filmstrip projector and a record player. The Dorsett Company also added a cassette player to each machine, to accommodate lessons from the Basic Skills Centers Reading Program (see below). ESAA funds were used to place Dorsett machines in every elementary, junior high, and parochial school participating in either the Intermediate or Junior High reading programs. The only exceptions were the three intermediate schools that had half-time reading tutors; machines and machine-usable materials were not provided to these schools.

Each lesson for an audiovisual teaching machine such as the Dorsett consists of both a filmstrip and a synchronized soundtrack. For each frame of the filmstrip there is a soundtrack-presented comment or question. If a question is asked, the student responds by pressing one of three buttons (some audiovisual machines have five buttons). A correct choice is followed by a soundtrack presentation of "Yes," "Right," "Correct," or the equivalent, and the filmstrip automatically advances. On the Dorsett machine, an incorrect choice is followed by a 1-second "error tone," and the correct button must then be pressed for the lesson to continue. At the conclusion of the audiovisual presentation, the student may complete a brief paper-and-pencil mastery test. Each lesson used in the reading programs generally took 15-20 minutes; most students could easily complete two lessons during a class period.

Two sets of curriculum materials were used with Dorsett machines in each reading program. The previous comments on the design and use of the materials generally apply to both of the following curricula:

1. The Basic Skill Centers Reading Program, developed by Minneapolis Schools staff, was first used in the Basic Skill Centers of the Minneapolis

Public Schools (see Clark, 1972, 1973). Each lesson in the Basic Skill curriculum focuses on a particular "molecular" reading skill, or several related skills. With nonreaders, the lessons are used in an invariant sequence to develop systematically the primary phonetic decoding skills of word analysis. Individual lessons in the Basic Skill curriculum can also be used in remedial work with readers having specific weaknesses. The soundtrack for each Basic Skill lesson was provided by a cassette tape synchronized with the accompanying filmstrip. A complete or near-complete set of Basic Skill lessons was available in all schools participating in the Junior High Program throughout 1974-75. In the Junior High Program, Basic Skill lessons were supposed to be the primary curriculum for Objective I students (see Project application, p. 16).

The Basic Skill curriculum was not a part of the Intermediate Program as originally proposed; however, the Project proposal (p. 54) said that "consideration will be given to acquisition of the Minneapolis Basic Skill Program." By January, 1975, the decision had been made to purchase these materials and a set of Basic Skill lessons was available in half the Intermediate Program schools.

2. The Dorsett Reading Program was the curriculum originally designed for use with the Dorsett machines. Dorsett lessons were provided to every ESAA school with Dorsett machines. All Intermediate Program schools, except those with tutors, had Dorsett lessons for the entire 1974-75 school year. The Dorsett Program, more than the Basic Skill Program, emphasized story reading in the development of reading skills. Each Dorsett story is graded according to the comprehension level it requires. A number of different skills may be combined in the same high-interest Dorsett story. In the Basic Skill Program, however, each lesson stresses one specific skill.

Cost of instructional materials and equipment. The Basic Skill Centers Reading Program and the commercial Dorsett Reading Program, along with the Dorsett A-V machines themselves, accounted for nearly all of the ESAA funds budgeted for instructional materials and equipment. In the Intermediate Program $40,661 was budgeted for instructional materials, $19,250 for Dorsett machines, and $4,500 for maintenance of these machines.

The materials and equipment budget for the Junior High Program was prepared separately for the public junior highs and the nonpublic schools. For public junior highs, $25,000 was budgeted for materials, $1,800 for purchase of six Dorsett machines, and $1,000 for machine maintenance. For

nonpublic junior highs, $3,035 was allotted for materials and $1,480 for purchase of 5 Dorsett machines. The Junior High Program, in its second year of operation, already had most of the needed materials and machines.

Small portions of the materials budgets of each Program were used to buy materials other than Basic Skill Centers and commercial Dorsett materials. These supplementary materials included commercially prepared high interest books with accompanying cassette narrations. Some commercial Dorsett vocabulary lessons were also purchased for ESAA junior highs and nonpublic schools.

Frequency of Use of Different Reading Materials

Tables 1 and 2 show the frequency of use of different reading materials by ESAA students in the Intermediate and Junior High reading programs. These tables indicate that the mainstays of each program were the machine-usable lessons just discussed. The Junior High Program, more than the Intermediate Program, struck an even balance between the use of Dorsett lessons and the use of Basic Skill lessons. Table 2 shows that in the Junior High Program the average per pupil use for Dorsett lessons and for Basic Skill lessons was about "One or two days" out of every five days attended.

According to Table 1, however, the Intermediate Program relied very heavily on Dorsett lessons; about 3-5 days a week per pupil, on the average.

Only 9 of the 18 Intermediate Program schools (1, 3, 8, 9, 15, 17, 19, 25, and 26) had Basic Skill lessons. Each of these 9 schools received--in January, 1975--a complete set of all available Minneapolis Basic Skill Centers Reading Program lessons. Each lesson set cost $1700.

Hard to understand, nevertheless, is the low frequency of use of Basic Skill lessons even in those Intermediate Program schools housing these lessons. Of the 9 schools with Basic Skill lessons, 6 reported an average frequency of usage of only "once or twice" per student; 2 schools reported an average usage per student of "never this year so far." Among the 9 Intermediate Program schools, only 1 reported an average frequency of use as high as "less than one day out of five, but during at least several ESAA class sessions."

Table 1

Frequency of Use of Different Reading Materials by Students in the ESAA Intermediate Reading Program

Mean frequency of use of different materials based on all students enrolled in ESAA reading programs, with frequency coded as follows:

5=Every day, or nearly so
4=Three or four days out of every five days attended
3=One or two days out of five
2=Less than one day out of five, but during at least several ESAA class sessions.
1=Only once or twice while in the ESAA class
0=Never this year so far

Reading material	Total Intermediate group (N=989)		Intermediate Reading Program Schools																
	Mean	Standard Deviation	Sch. 1 N=85	Sch. 3 N=53	Sch. 4 N=18	Sch. 6 N=50	Sch. 7 N=91	Sch. 8 N=95	Sch. 9 N=37	Sch. 13 N=38	Sch. 14 N=45	Sch. 15 N=82	Sch. 17 N=84	Sch. 19 N=50	Sch. 20 N=11	Sch. 22 N=9	Sch. 25 N=53	Sch. 26 N=74	Sch. 27 N=63	Sch 29 N=51
a. Minneapolis Basic Skill Centers Reading Program	0.6	1.4	0	1	0	0	0	1	2	0	0	1	1	1	0	0	1	0	0	0
b. Commercial Dorsett Reading Program	4.4	1.3	5	4	0	5	5	4	4	5	5	4	5	4	0	0	4	5	5	5
c. Other commercially prepared materials designed to teach basic reading skills	0.9	1.1	2	0	4	0	1	0	0	2	2	1	2	0	5	4	0	0	0	2
d. Teacher-made materials to teach basic reading skills	1.9	1.6	2	0	3	2	4	1	3	2	5	1	0	2	2	2	3	0	3	3
e. High interest books with accompanying cassette narration	0.3	0.7	0	0	2	0	0	0	1	0	1	0	2	0	2	0	0	0	0	0
f. Other books or paperbacks (not designed to teach reading and having no reading-related questions)	0.5	0.7	1	0	1	1	0	0	0	0	1	1	1	1	2	0	0	0	0	1
g. Magazines	0.3	0.5	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
h. Newspapers	0.1	0.3	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
i. Other materials	0.5	0.9	1	0	0	0	0	0	0	1	0	1	0	3	0	0	0	0	0	1
Mean number of supplementary materials (c-i above) used by each student	Entries in next row are mean number of supplementary materials (2-9 above) used by each student																			
	2.4	1.8	6	0	4	2	2	1	1	3	3	5	3	2	3	2	1	0	1	4

Note.--Frequencies of materials use within each school are rounded to the nearest integer. Frequencies for total groups, averaged over schools, are rounded to the nearest tenth. For the total student group only, means (averages) and standard deviations are calculated.

Table 2

Frequency of Use of Different Reading Materials by Students in the ESAA Junior High Reading Program

Mean frequency of use of different materials based on all students enrolled in ESAA reading programs, with frequency coded as follows:

5=Every day, or nearly so
4=Three or four days out of every five days attended
3=One or two days out of five
2=Less than one day out of five, but during at least several ESAA class sessions
1=Only once or twice while in the ESAA class
0=Never this year so far

Reading material	Public Junior High Program Schools										Nonpublic Junior High Program Schools						
	Total public junior high group (N=758)		Sch. A	Sch. B	Sch. C	Sch. D	Sch. E	Sch. F	Sch. G	Sch. H	Total nonpublic (parochial) school group N=153		Sch. I	Sch. J	Sch. K	Sch. L	Sch. M
	Mean	Standard deviation	N=56	N=119	N=132	N=101	N=73	N=98	N=88	N=91	Mean	Standard deviation	N=35	N=22	N=34	N=30	N=32
a. Minneapolis Basic Skill Centers Reading Program	2.7	2.1	3	3	3	2	4	2	3	1	2.8	1.4	2	2	2	3	4
b. Commercial Dorsett Reading Program	3.1	2.0	3	2	4	1	4	3	3	4	3.3	1.6	2	4	5	3	3
c. Other commercially prepared materials designed to teach basic reading skills	0.5	0.9	0	2	0	0	0	0	0	1	1.4	1.3	2	3	0	1	2
d. Teacher-made materials to teach basic reading skills	1.7	1.4	3	3	0	2	2	0	3	2	1.7	1.5	4	2	2	0	1
e. High interest books with accompanying cassette narration	1.1	1.2	1	1	0	0	3	1	1	2	1.7	0.8	2	1	2	2	2
f. Other books or paperbacks (not designed to teach reading and having no reading-related questions)	1.0	1.3	4	2	0	2	0	0	1	0	1.3	1.4	1	3	0	1	3
g. Magazines	1.0	1.2	3	2	0	0	1	1	1	1	0.3	0.5	1	0	0	1	0
h. Newspapers	0.9	1.2	0	3	0	0	3	0	1	0	0.2	0.4	1	0	0	0	0
i. Other materials	0.5	0.8	0	1	0	1	0	0	0	1	0.5	0.7	1	0	0	1	0
Mean number of supplementary materials (c-i above) used by each student	Entries in next row are mean number of supplementary materials (2-9 above) used by each student																
	3.2	2.3	3	6	0	3	3	1	5	5	3.6	2.0	6	4	2	3	3

Note.--Frequencies of materials use within each school are rounded to the nearest integer. Frequencies for total groups, averaged over schools, are rounded to the nearest tenth. For the total student group only, means (averages) and standard deviations are calculated.

Other reading materials. As mentioned previously, most students in the ESAA reading programs were easily able to complete two (but not three) machine-programmed lessons (either Basic Skill or Dorsett) within a 35-45 minute class period. The ESAA reading teachers therefore had the practical problem of finding supplementary activities for the remaining class time. Tables 1 and 2 show that all but two of the Intermediate Program teachers and all but one of the Junior High Program teachers used materials to supplement Basic Skill and Dorsett lessons. The average number of different supplementary materials used per student was 2.4 for the intermediate ESAA students; 3.2 for the junior high students; and 3.6 for the junior high nonpublic students.

As shown in Tables 1 and 2, these supplementary materials included:

1. Teacher-made materials to teach basic reading skills. After Dorsett and Basic Skill lessons, these teacher made materials were most frequently used. In both programs the average per pupil frequency of use was about "Less than one day out of five, but during at least several ESAA class sessions." These materials included worksheets, games, puzzles, flashcards, and other exercises to teach vocabulary, spelling, phonics, "comprehending the main idea in a story," writing, and other reading-related skills. In two cases, teachers indicated they had adapted a TV game show to teach a reading-related topic. Other teachers adapted materials from commercial sources or borrowed materials created by other teachers.

2. Commercially prepared materials (other than Dorsett or Basic Skill lessons) designed to teach basic reading skills. More than half of the teachers in each program indicated they had used parts of reading series and other commercially prepared materials. Tables 1 and 2, however, show the average per pupil frequency of use to be quite low for these commercial materials, especially in public junior highs. Only in the three Intermediate Program schools with tutors (and no Dorsett or Basic Skill lessons) and in one Junior High Program nonpublic school did students use commercial materials at least once a week, on the average.

3. Other materials infrequently used by ESAA students included high interest books with accompanying cassette narrations (ESAA funds were used to purchase some of these book-cassette series); library books and paperbacks; popular magazines and reading-oriented scholastic magazines; commercial word games; and newspapers. In only one Intermediate

Program school, three Junior High Program public schools, and two Junior High Program nonpublic schools were any of these materials used once a week or more.

Multi-ethnic materials. Since the total ESAA Project was designed to help solve any problems associated with Minneapolis' school-desegregation, ESAA teachers were asked whether they had used "multi-ethnic" reading materials, "designed to promote understanding of, and respect for, different racial and ethnic groups" (See Appendix C questionnaire, p. 48). Only one-third of the 18 Intermediate Program teachers said they used multi-ethnic materials, whereas about two-thirds of the 13 Junior High program teachers responding to their questionnaire said they used such materials. Several teachers indicated they had found entire series or workbooks devoted to multi-ethnic themes (e.g., Black history). Several other teachers apparently searched long and hard for multi-ethnic materials, with varying success. One teacher found a book on Native Americans at the Minnesota Historical Society; another found the school library a useful resource. Only one teacher suggested that the Basic Skill and Dorsett lessons fulfilled the definition of "multi-ethnic materials."

ESAA Reading Students: Their Selection and Characteristics

Projected numbers of service-eligible students for the ESAA Reading programs. The proposal for the 1974-75 Minneapolis ESAA Project estimated the numbers of students that could be served by each reading program, given specified criteria for instruction-eligibility (see pp. 5 - 7 of this report.)

The application for funds estimated that 17 of the 18 Intermediate Program schools could, as of fall, 1974, each expect to find 137 students eligible for ESAA instruction. The basis for these projections was an unspecified "needs assessment" (Project application, p. 53).

The Project application (p. 13) used results of 1972 and 1973 citywide testing to estimate that each Junior High Program public school could expect as of fall, 1974, at least 263 students eligible for ESAA instruction according to the above criteria. Each Junior High Program nonpublic school could expect 26 such students.

Selection of students for the Intermediate Program. A combination of test scores, recommendations of classroom teachers, and other factors specific to each school (e.g., Reading Coordinator judgments, availability

of space in the ESAA Reading Center, etc.) were used in an attempt to select students according to the ESAA Project proposal's criteria.

As noted on p. 5 of this report, the criteria for Intermediate Program eligibility unexpectedly generated too few students at each school. In addition, Intermediate Program teachers at the start of 1974-75 had only Dorsett reading lessons, which presuppose some decoding skills. These teachers could not therefore handle the poorest reading students in their school; i.e., those intermediate grade students two or more years below grade in comprehension. In early fall, 1974, therefore, the Intermediate Program began to seek students with some decoding skills who were one or more years below grade level in comprehension.

Actual number of students served by the ESAA reading programs. Table 3 shows that 1900 students were served by the combined ESAA reading programs. A total of 989 were served by the 18 Intermediate Program schools, for an average of 55 students per school. The 8 public Junior High Program schools served 758 students, or 95 per school. The 5 nonpublic Junior High Program schools instructed 153 students, or 31 per school.

Per pupil cost of the programs. Based on the amounts budgeted for each program (see p. 2 of this report), the Intermediate Program cost $331 for each enrolled student; the Junior High Program in public schools, $309 per student; and the Junior High Program in nonpublic schools, $223 per student.

Pretest reading comprehension. Table 3 indicates that the mean pretest grade score was 3.2 for Intermediate Program students; 4.1 for Junior High Program students in public schools; and 4.9 for Junior High Program students in nonpublic schools. The standard deviations of the pretest means for each school were generally near 1: in general, about two thirds of the ESAA students at each school had pretest scores between 1 grade-score year above, and 1 grade-score year below, their school's ESAA mean.

Guidelines for the Junior High Program specified that no student would have a pretest grade score greater than 6.0. In fact, 48 (6%) of the Junior High Program public school students and 37 (24%) of the Junior High Program nonpublic school students had pretest grade scores greater than 6.0. These

Table 3

Selected Characteristics of ESAA Reading Students

	School	Student Characteristics															
			Grade[a,b]			Sex		Race[c]			Pretest grade score		Posttest grade score		Months enrolled in ESAA Program[d]		% of students bussed to school[e]
		Number of ESAA Students	4th %	5th %	6th %	Male %	Female %	White Am. %	Black Am. %	Native Am. %	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	
INTERMEDIATE READING PROGRAM SCHOOLS	Total Intermediate	989	21%[a]	30%[a]	29%[a]	53%	47%	54%	32%	10%	3.2	1.0	4.5	1.2	4.4	2.0	61%
	School 1	85	8[a]	15[a]	20[a]	44	56	61	35	1	3.4	0.7	4.5[f]	1.0[f]	5.1	2.2	69
	School 3	53	21	42	38	60	40	58	40	2	2.9	0.7	4.5	1.2	6.7	1.7	62
	School 4	18	0[a]	0[a]	0[a]	39	61	39	50	6	3.9	1.0	4.8	1.2	2.6	0.7	100
	School 6	50	12	36	52	38	62	44	38	18	3.3	0.9	4.9	1.2	3.5	1.5	92
	School 7	91	19	37	44	49	51	47	33	18	3.6	1.2	4.7[g]	1.2[g]	3.0	1.2	60
	School 8	95	24	40	36	65	35	60	39	0	2.8	0.7	4.1	1.1	3.6	1.5	44
	School 9	37	19	46	35	43	57	43	8	41	2.8	0.8	4.0	1.0	5.3	1.5	49
	School 13	38	42	58	0	55	45	61	13	21	2.4	0.5	3.9	0.9	6.7	1.1	21
	School 14	45	27	36	38	64	36	64	33	0	3.0	0.8	4.5	1.1	5.2	1.2	57
	School 15	82	4[a]	2[a]	4[a]	51	49	74	4	18	3.6	1.1	4.6	1.1	4.1	1.4	62
	School 17	84	33	36	31	51	49	39	57	4	2.8	0.9	4.0	1.1	4.9	2.4	44
	School 19	50	32	32	36	64	36	64	14	20	2.7	0.8	4.3	1.4	4.7	2.2	22
	School 20	11	27	18	55	55	45	45	0	55	2.6	0.9	3.6	0.9	2.8	1.5	100[h]
	School 22	9	44	33	22	44	56	78	22	0	2.6	0.6	4.2	1.3	4.7	2.1	89
	School 25	53	0[a]	0[a]	2[a]	49	51	46	35	2	2.9	0.8	4.5[i]	1.2[i]	3.6	1.6	91
	School 26	74	26	32	42	54	46	42	49	8	3.8	1.0	5.6	1.0	4.0	1.6	93
	School 27	63	38	33	29	56	44	46[j]	21[j]	7[j]	3.1	0.8	4.5	1.5	3.2	1.1	97
	School 29	51	25	41	33	66	34	65	31	2	3.3	0.8	5.5[k]	1.0[k]	5.2	2.0	6
			7th %	8th %	9th %												
JUNIOR HIGH READING PROGRAM PUBLIC SCHOOLS	Total Jr. H. Public	758	52%	32%	17%	59%	41%	56%	33%	10%	4.1	1.3	5.7[l]	2.0[l]	5.4	2.5	53%
	School A	56	50	50	0	55	45	53	41	3	3.8	1.1	5.0	1.5	5.9	1.2	38
	School B	119	52	48	0	61	39	43	50	6	3.7	1.1	4.9[m]	1.6[m]	4.3	2.3	57
	School C	132	77	23	1	48	52	61	7	33	4.8	1.4	6.5	2.1	6.8	1.6	33
	School D	101	0	0	100	57	43	45	51	4	4.2	1.3	6.3[n]	2.2[n]	5.0	2.4	94
	School E	73	97	3	0	70	30	62	37	1	3.8	1.0	5.0[o]	1.6[o]	6.6	2.8	84
	School F	98	56	44	0	59	41	62	24	14	4.1	1.4	5.7	1.9	4.7	2.3	60
	School G	88	31	42	27	58	42	38	57	3	3.7	1.2	5.1	1.7	5.5	2.9	58
	School H	91	54	46	0	69	31	85	11	3	4.2	1.1	6.1[p]	2.0[p]	4.3	2.2	3
JUNIOR HIGH READING PROGRAM NONPUBLIC SCHOOLS	Total Jr. H. Nonpublic	153	38%[b]	26%[b]	20%[b]	44%	56%	58%	26%	15%	4.9	1.4	6.6[q]	2.3[q]	6.6	3.2	-
	School I	35	57[b]	31[b]	0[b]	46	54	41	41	19	4.4[r]	1.1[r]	5.9[s]	2.4[s]	9.0[s]	0.1[s]	-
	School J	22	23[b]	41[b]	0[b]	55	45	68	14	18	4.9	1.4	6.3	2.1	4.8	2.5	-
	School K	34	65	35	0	76	24	88	12	0	5.3	0.9	7.2[s]	2.1[s]	9.9	0.8	-
	School L	30	0	0	100	0	100	60	37	0	6.3	1.2	8.7[t]	1.7[t]	4.6	2.5	-
	School M	32	34[b]	25[b]	0[b]	44	56	38	22	41	3.8	1.0	5.1[u]	1.3[u]	3.8	2.3	-

Note.--Statistics for each variable in this table are based on students with complete data for that variable. For each variable the total number of students is not footnoted unless this N is at least 5% less than the total number of ESAA students.

[a] 19% of the Intermediate Program students were enrolled in general academic programs classified as "ungraded upper elementary." The schools and their percents of ESAA students ungraded were School 1--56%, School 4--100%, School 15--88%, and School 25--98%.

[b] 16% of the Junior High Program nonpublic students were upper elementary students. The schools and their percents of ESAA students in elementary grades were School I--11%, School J--36%, and School M--41%.

[c] An additional .9% of all ESAA students in both programs were Spanish-surnamed, .4% were Asian American, and .7% were designated "Other" race or ethnic group.

[d] Months in the program is defined as the number of enrolled days (including absences) between the pretest and the posttest, divided by 17.9, the average number of days in a school month.

[e] This statistic is based on the number of students riding a bus as part of the Minneapolis Public Schools' desegregation plan. Nonpublic schools did not participate in this plan.

[f] N=77
[g] N=84
[h] N=10
[i] N=50
[j] N=28
[k] N=46
[l] N=683
[m] N=103
[n] N=76
[o] N=58
[p] N=76
[q] N=141
[r] N=30
[s] N=32
[t] N=27
[u] N=29

students were served by ESAA reading programs even though they were ineligible.

For the Intermediate Program, it is more difficult to determine the number of ineligible students that were in fact served because 19% of the Intermediate Program students were enrolled in schools or general academic programs classified as "ungraded upper elementary." For such students the discrepancy between grade placement and grade score could not of course be computed. Among Intermediate Program students who could be classified as 4th, 5th, or 6th graders, however, 38 (4%) should not have been enrolled if the "one-year-below-grade-level" revised eligibility criterion had been strictly followed.

Months enrolled and attendance in the ESAA reading programs. "Months enrolled" was defined as the number of enrolled days (including absences) between the pretest and the posttest, divided by 17.9, the average number of days in a school month. (During 1974-75 there were 179 school days.) For the Intermediate Reading Program, the average number of months enrolled per student was 4.4 months; for the Junior High Program in public schools, 5.4 months; and for the Junior High Program in nonpublic schools, 6.6 months. For students who remained in their ESAA reading program until the end of the school year, the number of months enrolled is underestimated because the timetable for the conduct of this evaluation required completion of all testing by mid-May.

In the Intermediate Program, 71% of the students took their ESAA pretest during September, October, or November; 70% took their posttest in April or May. While enrolled, the attendance of these students in the ESAA class was 82% (standard deviation = 15%).

In the Junior High Program, 72% of the public school students took the pretest from September through October; 68% took the posttest in April or May. Among the nonpublic students, 81% took their pretest in September or October, and 84% took their posttest in May. The ESAA-class attendance of Junior High Program public school students was 85% (s.d. = 15%); the attendance of nonpublic students was 90% (s.d. = 11%).

Other notable student characteristics. In both the Intermediate Program and the public school Junior High Program (a) boys somewhat outnumbered girls, (b) the proportion of Black students was about one-third,

(c) the proportion of Native American students was 10%, and (d) a majority of students rode the bus to school as part of the Minneapolis Schools' desegregation plan. In the nonpublic schools (a) girls outnumbered boys, (b) about one-fourth of the ESAA students were Black, and (c) about 15% were Native American.

The Staffing and Daily Operation of the Reading Programs

Staffing. The Intermediate Program's instructional staff consisted of 18 teachers and 16 teacher aides. The combined public and nonpublic Junior High Program had 15 teachers and 17 teacher aides.

Not all of these personnel worked full-time, however. For most of the school year, the Intermediate Program had funding for 15.5 full-time-equivalent teaching positions, 3 reading tutors at 3 hours per day, and 16 full-time-equivalent teacher aide positions. The three part-time tutors in the Intermediate Program (in Schools 4, 20, and 22) worked without benefit of the teaching machines and many of the materials provided to the other ESAA intermediate reading centers.

During the entire 1974-75 school year, the Junior High Program had funding for 9 full-time-equivalent teaching positions and 11 full-time-equivalent teacher aide positions. All 7 nonpublic Junior High Program teachers worked half-time or less with ESAA funding.

Among the 33 aides in both ESAA reading programs combined, about one-fifth worked half-time (4 hours per day) or less with ESAA funding. About four-fifths worked as ESAA aides for a full school day (between 6 and 7 hours).

Staff characteristics. The staff in both reading programs were predominantly White and female. Among those 31 of 33 teachers answering the ESAA Reading Teacher Questionnaire (Appendix C), 26 (84%) were White and 24 (77%) were female. Among those 32 of 33 aides answering the ESAA Reading Aide Questionnaire, 26 (81%) were White and 30 (94%) were female. The only minority group apparently represented among the teachers or aides was Black American, although two aides did not identify their racial/ethnic group.

Among teachers, almost one-third (29%) had a master's degree, about half (46%) of the public school teachers had tenure in the Minneapolis Public Schools, and about one-third (35%) had Minnesota teacher certification in reading. The Junior High Program public-school teachers appeared best qualified to teach reading: 7 of 8 had reading certification. Only 3 of 15 Intermediate

Program teachers and one of four respondents among nonpublic Junior High Program teachers held reading certification.

About half of the teachers in each program had taken four or more courses in reading. The mean number of reading courses was 4.1 for the entire responding group; the standard deviation 2.9. Four teachers in the Intermediate Program had taken no reading courses as of May, 1975, the date of the teacher questionnaire.

Daily operation. In each ESAA school with Dorsett machines, one classroom was designated as an ESAA reading center or reading lab. While enrolled in an ESAA program, nearly all intermediate and junior high students were scheduled into the reading center at least four times a week. Nearly every full-time public school teacher had a full class schedule of ESAA classes. One teacher funded for full-time ESAA work, however, inexplicably reported working half-time with ESAA students and half-time with non-ESAA students.

For many ESAA students, the ESAA reading class substituted for social studies, English, or at the intermediate level, for reading instruction by the regular classroom teacher.

While visiting ESAA classes, the evaluator found students generally active, attentive, and productive. As they entered a machine-equipped reading lab, most students began their Dorsett or Basic Skill lessons with a minimum of verbal instruction by staff. On completion of a lesson, students completed a short written exercise which they took to an aide or teacher for scoring. Students then either returned to the machine for another audiovisual lesson or began one of the supplementary reading activities described earlier in this report. In about half of the schools, teachers also involved students in some type of writing exercise during at least several class sessions.

Discipline and the ESAA programs. The generally quiet, orderly atmosphere of the ESAA class suggested to the evaluator that a reading program with audiovisual teaching machines might be particularly well suited to poor readers who are also disruptive and hard to manage in a regular classroom. About half of the ESAA teachers responding to the teacher questionnaire also felt that the ESAA program was particularly appropriate for such students; however, one-third indicated they didn't know whether the ESAA program was particularly appropriate for disruptive students (see p. 45).

When asked, "What proportion of your total ESAA student group came to the ESAA Reading Center mainly because they were disruptive and hard to manage in other classes, and not because they had severe reading problems?" 9 of every 10 teachers answered, "Very few..." or "None..." (see p. 45). Only one teacher felt that "About half" of the ESAA students were mainly discipline problems and not poor readers. In short, the ESAA programs do not appear to have been "dumping grounds" for teachers' disciplinary cases.

Working relationships between ESAA reading teachers and aides. These relationships were reported "Very good" or "Excellent" by nearly all of the aides and teachers. Three-fourths of both groups, teachers and aides used "Excellent" to describe this working relationship (see pp. 45 and 49).

The role of the teacher aides. When asked to list their three most important job activities (see p. 50), ESAA aides most frequently mentioned the following activities: Encouraging or praising the student; Working directly with students and helping them with their work; Maintaining up-to-date student records; and Organizing and storing the reading materials, and preparing them for use. Only a few aides and two teachers indicated any need for change in the aides' role.

Although three-fourths of the aides paid they enjoyed their work "Very greatly" (see p. 49), about one-fifth of the aides indicated some dissatisfaction with the conditions of their employment; e.g., pay scales, Civil Service seniority regulations, job insecurity, etc. (see p. 49).

A time analysis of the Junior High Program reading aide's role was included in the previous year's evaluation report (see Higgins, 1974c, pp. 15-16).

The Dorsett machine: again, some mechanical problems. This year, as last year (see Higgins, 1974c, p. 17), some teachers and aides had complaints about the mechanical operation of the Dorsett machines. About half of this year's teachers had dissatisfactions with the machines or their servicing (see p. 46). Five teachers said the machines were too easily broken (e.g., "wiring too easily accessible"); 5 teachers cited mechanical difficulties (e.g., "trouble with film advance," "errors in sequencing"). Six teachers mentioned inconvenient features that suggest needed improvements (e.g., "needle difficult to maneuver," "earphones don't fit...," "machine should allow student to reverse filmstrip...without losing place," "light bulbs burn out too quickly," "replace records with cassette tapes").

The evaluator has already advocated (1974c, p. 26) that a time-delay feature be added to the Dorsett machine, so that a student answering incorrectly receives not only a 1-second "error tone," but also a 10 or 15-second "time-out" period when further responding cannot advance the filmstrip. The evaluator's observations and teacher comments suggest that the error tone is not aversive for many students. Such students sometimes carelessly press the machine's buttons until the correct answer is located, and so progress through the lesson without reading it. A time delay for incorrect answering would eliminate reinforcement for random button pressing and therefore make such careless responding less frequent.

This year teachers were asked if they would favor a time delay for incorrect responding (see p. 46). Over three-fourths of the teachers indicated they would favor such a change in the Dorsett machine.

Training in the use of Dorsett machines, audiovisual reading lessons, and other reading materials. Teachers and aides generally found their pre-service and inservice training sessions to be at least moderately valuable (see pp. 48, 49). Both teachers and aides made a number of suggest ons for improved training including: (a) More sharing of ideas and materials between teachers (suggestion made by 6 teachers); (b) More sessions on adapting Dorsett and Basic Skill lessons to individual needs (7 teachers and 3 aides); and (c) More formal academic training in such topics as child psychology and remedial reading (6 aides and several teachers).

Expressed desire for use of a diagnostic reading test instead of a survey test. Teachers were asked to indicate the testing procedure they would most favor if the ESAA reading programs were continued beyond 1974-75. Three-fifths of the teachers indicated they would prefer a diagnostic reading test that attempted to measure different types of reading comprehension and other reading subskills (p. 46). Only 3 teachers said they would prefer retaining the Gates-MacGinitie survey-type tests used during 1974-75. Four-fifths of the 31 responding teachers said they would be willing to spend 2 or 3 hours scoring and profiling a set of 30 tests (this time estimate based on the manual for one popular standardized diagnostic test). In response to another question--one requesting general suggestions

for program improvement--10 of 19 teachers responding suggested the use of diagnostic tests or the testing of specific reading subskills (see Question 60, p. 48).

Other remedial reading programs in ESAA schools. Most of the public and nonpublic ESAA schools had other programs besides ESAA to teach basic reading skills (see Question 31, p. 45). These other reading programs included SLBP (mentioned by teachers in 18 schools), Title I (mentioned for 12 schools), Basic Skill Centers (students were bussed to these centers from at least 6 ESAA schools), other special education programs, and tutors.

The evaluator does not know the degree to which the ESAA reading program and these other reading programs were coordinated. In response to the request for general suggestions (see Question 60, p. 48), two teachers expressed a desire for greater coordination of their school's reading programs.

THE EFFECTIVENESS OF THE ESAA READING PROGRAMS IN MEETING THEIR OBJECTIVES

Did students enrolled in ESAA reading programs during 1974-75 make those gains in reading comprehension stated in the objectives for each program (see pp. 5-7)? The objectives for the Intermediate Program stated in part that the median gain would be 1.0 grade-equivalent month for each month enrolled. The objectives for the Junior High Program stated in part that (a) Objective I students, who entered the Program with comprehension levels of 3.9 or below, would make a median gain of 1.5 grade-equivalent months for each month enrolled, and (b) Objective II students, with pretest of 4.0-6.0, would achieve a median gain of 2.5 grade-score months for each month enrolled.

Table 4 shows the reading gain rates made by students in the Intermediate Program. Table 5 shows reading gains made by Objective I students in the Junior High Program. Table 6 shows the reading gains achieved by Objective II students in the Junior High Program. These tables show reading gains both for individual schools (if they had 19-20 ESAA students) and for total groups of students. For the Junior High Program, separate totals are presented for public vs. nonpublic schools.

Tables 4-6 also show (a) the degree to which students were inappropriately tested, (b) the extent to which students ineligible for ESAA instruction were actually served, and (c) the proportion of students for whom data needed to compute reading gain were missing.[2]

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[2]According to the guidelines of the Intermediate Program, students were to be tested using either a Gates-MacGinitie C1 or C2 Comprehension Test. Instruction-eligible students were those at least one year below grade placement in comprehension. Table 4 shows that of the 989 total students in the Intermediate Program, only 60 (6%) were inappropriately tested with Gates D forms, or other tests. Another 40 students (4%) had missing gain-rate data. Among the 889 appropriately tested students, only 7 (1%) were clearly ineligible for service. Another 201 (23%) were enrolled in academic programs classified as "ungraded upper elementary," and their eligibility for instruction could not therefore be determined.

The guidelines of the Junior High Program specified that Objective I students were to be tested using a C2; Objective II students were to be tested using a D2 or D2M. No student in the Junior High Program should have had a pretest comprehension grade score greater than 6.0.

Tables 5 and 6 show that the Junior High Program had 911 students. Of these 342 (38%) were Objective I students, 394 (43%) were Objective II students, 79 (9%) had pretest scores above 6.0 and were therefore served though ineligible, and 96 (11%) were missing some data item needed to compute reading gain rate. Because they took pretest-posttest combinations other than C2-C2 or D2-D2, the reading gains of 23 Objective I students and 20 Objective II students were not computed.

Table 4
Student Attainment of Objectives for the ESAA Intermediate Reading Program

Statement of Objectives		Attainment of objectives (by students who were appropriately tested): Actual % of intermediate students making each level of gain																									
Rate of reading comprehension gain	Expected % of students making this gain	Total group of Intermediate students N=889[a]				School 1 N=85		Sch 3 N=53	Sch 6 N=50	School 7 N=91		School 8 N=95		Sch 9 N=37	Sch 13 N=38	Sch 14 N=45	Sch 15 N=82	School 17 N=84		Sch 19 N=50	Sch 25 N=53	School 26 N=74		Sch 27 N=63	Sch 29 N=51
		Gates-MacGinitie comprehension tests used to measure pre-to-posttest reading gain																									
		C2-C2		C2-C1		C2-C2	C2-C1	C2-C2	C2-C2	C2-C2	C2-C1	C2-C2	C2-C1	C2-C2	C2-C2	C2-C2	C2-C2	C2-C2	C2-C1	C2-C2	C2-C2	C2-C2		C2-C2		C2-C2	C2-C2
		All N=718	Elig. N=551	All N=171	Elig. N=130	All N=41	All N=36	Elig. N=51	Elig. N=38	Elig. N=54	All N=23	Elig. N=64	Elig. N=27	Elig. N=37	Elig. N=20	Elig. N=29	All N=70	Elig. N=52	Elig. N=23	Elig. N=28	All N=37	All N=74	Elig. N=53	Elig. N=43	Elig. N=38
1.4 or more months gain for each month in the Program	25	80	82	69	68	83	64	71	76	80	65	92	78	73	75	79	64	79	61	82	78	95	94	79	92
1.0 to 1.3 months gain for each month in the Program	25	6	6	8	10	7	6	14	11	6	0	2	4	8	10	10	10	6	22	4	5	0	0	7	0
Less than 1.0 months gain for each month in the Program (implied by stated objectives)	50	14	12	23	22	10	31	16	13	15	35	6	19	19	15	10	26	15	17	14	16	5	6	14	8
Descriptive statistics																									
Median rate of comprehension gain (expected rate is 1.0 months gain for each month in the Program)		3.1	3.2	2.3	2.3	2.8	1.9	2.1	3.5	2.6	2.2	3.6	3.3	1.9	2.1	2.4	2.3	2.1	2.0	4.0	4.3	4.1	4.3	4.1	3.8
Mean rate of comprehension gain		3.9	3.9	2.9	3.1	3.9	2.1	2.5	4.5	4.2	3.1	5.0	4.7	2.4	2.1	2.9	2.9	2.6	2.9	4.3	7.5	4.8	5.1	4.8	4.3
Standard deviation of comprehension-gain rate		5.4	4.1	3.5	3.8	4.8	2.1	2.0	3.9	5.9	5.5	5.3	5.2	1.5	1.3	1.8	2.6	2.1	2.5	2.9	16.7	3.2	3.5	6.3	3.0

Note.--This table is based on the gains of those 889 students appropriately tested (a) using the Comprehension Test of the Gates-MacGinitie Primary C, Form 2 as both pretest and posttest (the groups labeled "C2-C2" in the table), or (b) using the Gates C2 as pretest and the equivalent Gates Primary C, Form 1, as posttest (the groups labeled "C2-C1").

The label "All" indicates statistics based on all appropriately tested students in a given school or total group. The label "Elig." refers to students eligible for instruction; that is, students with pretest grade scores at least one year below their grade placement at pretest time. In schools 1, 4, 15, and 25, most ESAA students were classified as "ungraded upper elementary," and their eligibility for instruction could therefore not be determined.

Results are presented separately only for those schools with 20 or more appropriately tested ESAA students. In addition, the reading gains of subgroups within each school (e.g., students who took C2-C1, or "Elig." students) are presented only if they numbered 20 or more. Thus, if the number of "Elig." students was less than 20, only the results for that school's total group ("All") are presented. However, when "Elig." students numbered 20 or more and constituted 90% of the school's total group, results are presented for only the "Elig." group. The results for the total group of Intermediate Program students are based on all appropriately tested students, even those omitted from tabular presentation.

Schools 4, 20, and 22 are omitted from this table (but not from total Intermediate statistics). For School 4 (N=18), the median gain rate was 3.1 based on 17 students whose eligibility for instruction could not be determined. In School 20 (N=11) and School 22 (N=9), the median rates were 3.0 and 2.8, respectively. Test data were incomplete for one student at School 22.

"Months in the program," used to compute rate of comprehension gain, is defined as the number of enrolled days (including absences) between the pretest and the posttest, divided by 17.9 (the number of days in a school month).

[a]Another 100 students (10% of the total group) were served by the Program but their results are not reported: 42 took a Gates-MacGinitie D form as pretest and posttest; 18 took other inappropriate tests or test combinations; and 40 (4%) were missing some data item needed to compute reading gain rate (i.e., missing test scores, enrollment information, test form used).

Table 5

Attainment of Junior High Program Objective Set I by ESAA Students
with Pretest Reading Comprehension of 3.9 or Less

Statement of Objective Set I		Attainment of Objective Set I: Actual % of students making each level of gain																			
		Total group of public school students N=286[a]		Public junior highs																Total group of nonpublic school students N=33	
				School A N=28		School B N=55		School C N=43		School D N=22		School E N=33		School F N=34		School G N=52		School H N=19			
		Gates-MacGinitie comprehension tests used to measure pre-to-posttest reading gain																			
Rate of reading comprehension gain	Expected % of students making this gain	C2 N=146	D2 N=140	C2 N=27	D2 N=1	C2 N=44	D2 N=11	C2 N=0	D2 N=43	C2 N=14	D2 N=8	C2 N=5	D2 N=28	C2 N=31	D2 N=3	C2 N=17	D2 N=35	C2 N=8	D2 N=11	C2 N=10	D2 N=23
2.5 or more months gain for each month in the Program	30	32	39	37	-	27	46	-	42	29	38	-	18	52	-	24	34	0	73	80	35
1.7 to 2.4 months gain for each month in the Program	15	21	24	26	-	18	27	-	26	14	38	-	25	13	-	41	23	25	0	0	39
1.0 to 1.6 months gain for each month in the Program	30	18	18	11	-	16	9	-	19	36	0	-	32	16	-	18	17	25	9	20	4
Less than 1.0 months gain for each month in the Program (not part of stated objectives)	25	30	20	26	-	39	18	-	14	21	25	-	25	19	-	18	26	50	18	0	22
Descriptive statistics only for students appropriately tested with Gates-MacGinitie C2																					
Median rate of comprehension gain (expected rate is 1.5 months gain for each month in the Program)		N=146 1.7		N=27 2.0		N=44 1.4		N=0 -		N=14 1.5		N=5 -		N=31 2.5		N=17 1.8		N=8 .8		N=10 4.1	
Mean rate of comprehension gain		2.1		2.1		2.1		-		1.8		-		2.8		1.9		1.1		6.9	
Standard deviation of comprehension-gain rate		2.3		1.8		3.1		-		1.3		-		2.3		1.2		.8		7.1	

Note.--The prescribed pretest and posttest for students believed to have pretest grade scores of 3.9 or less was the Comprehension Test of the Gates-MacGinitie Primary C, Form 2. Attainment of Objective Set I is determined using the results of C2 testing; hence, median and mean gain rates are presented only for groups taking C2. Since nearly half of the Objective I students (pretest scores of 3.9 or less) inappropriately took Gates-MacGinitie Survey D, Form 2 or Form 2M, frequency distributions only are presented for these D2-tested groups.

Results are presented separately only for those schools with 19 or more Objective I students (pretest scores of 3.9 or less). In addition, frequency distributions (and for C2-tested students, other descriptive statistics) are presented only for subgroups numbering 8 or more. The results for the total groups of public and nonpublic Objective I students are based on all such students with complete test and enrollment data, even those omitted from tabular presentation.

"Months in the Program" is defined in the Note for Table 4.

[a]An additional 23 Objective I students took pretest-posttest combinations other than C2-C2 and D2-D2. Hence, of the 911 students served by the Junior High Program, 342 (38%) were Objective I students, 394 (43%) were Objective II students, 79 (9%) had pretest scores greater than 6.0 and were thus served though ineligible, and 96 (11%) were missing some data item needed to compute reading gain rate (i.e., missing test scores, enrollment information, test form used).

Table 6

Attainment of Junior High Program Objective Set II by ESAA Students with Pretest Reading Comprehension of 4.0 to 6.0

Statement of Objective Set II		Attainment of Objective II: Actual % of students making each level of gain																			
		Total group of public school students N=313[a]		Public junior highs																Total group of nonpublic school students N=61	
				School A N=28		School B N=39		School C N=61		School D N=40		School E N=24		School F N=48		School G N=33		School H N=40			
		Gates-MacGinitie comprehension tests used to measure pre-to-posttest reading gain																			
Rate of reading comprehension gain	Expected % of students making this gain	C2 N=35	D2 N=278	C2 N=13	D2 N=15	C2 N=4	D2 N=35	C2 N=0	D2 N=61	C2 N=1	D2 N=39	C2 N=0	D2 N=24	C2 N=15	D2 N=33	C2 N=2	D2 N=31	C2 N=0	D2 N=40	C2 N=12	D2 N=49
4.0 or more months gain for each month in the Program	30	11	42	0	20	-	46	-	25	-	54	-	21	27	58	-	32	-	68	0	20
2.7 to 3.9 months gain for each month in the Program	15	9	12	15	7	-	17	-	20	-	13	-	0	7	6	-	7	-	15	8	20
1.0 to 2.6 months gain for each month in the Program	30	46	27	69	40	-	23	-	34	-	18	-	29	27	21	-	39	-	15	42	49
Less than 1.0 months gain for each month in the Program (not part of stated objectives)	25	34	19	15	33	-	14	-	21	-	15	-	50	40	15	-	23	-	3	50	10
Descriptive statistics for students appropriately tested with Gates-MacGinitie D2 or D2M																					
Median rate of comprehension gain (expected rate is 2.5 months gain for each month in the Program)		N=278	3.1	N=15	1.5	N=35	3.6	N=61	2.4	N=39	5.2	N=24	.8	N=33	4.3	N=31	2.0	N=40	5.5	N=49	1.8
Mean rate of comprehension gain			4.6		2.5		4.4		2.9		5.4		2.8		6.2		3.9		7.4		2.9
Standard deviation of comprehension-gain rate			4.9		3.1		3.6		3.3		4.4		5.3		6.4		4.3		6.0		2.9

Note.--The prescribed pretest and posttest for students believed to have pretest grade scores of 4.0-6.0 was the Comprehension Test of the Gates-MacGinitie Survey D, Form 2 or Form 2M. Attainment of Objective Set II is determined using the results of C2 testing; hence, median and mean gain rates are presented only for groups taking D2 or D2M. "D2" as a table label includes both D2 and D2M. For students who inappropriately took the Gates C2 test, frequency distributions only are presented.

Results are presented separately only for those schools with at least 20 Objective II students (pretest scores of 4.0-6.0). In addition, frequency distributions are presented only for subgroups numbering 8 or more. The results for the total groups of public and nonpublic Objective II students are based on all such students with complete test and enrollment data even those omitted from tabular presentation.

Schools I, J, and M were among those omitted from this table because they had fewer than 20 Objective II students. For School I's 17 appropriately tested Objective II students, the median gain rate was 1.4. For School J, the median gain rate was 1.8 for 10 students. For School M, 2.3 for 10 students All other nonpublic schools had fewer than 8 appropriately tested Objective II students.

"Months in the Program" is defined in the Note for Table 4.

[a]An additional 20 Objective II students took pretest-posttest combinations other than C2-C2 and D2-D2. Hence, of the 911 students served by the Junior High Program, 394 (43%) were Objective II students, 342 (38%) were Objective I students, 79 (9%) had pretest scores greater than 6.0 and were thus served though ineligible, and 96 (11%) were missing some data item needed to compute reading gain rate (i.e., missing test scores, enrollment information, test form used).

Attainment of Objectives by the Intermediate Reading Program

The Intermediate Reading Program not only met, but surpassed its goals for comprehension gain among disabled readers. Table 4 shows that Intermediate Program students who took a Gates C2 for both pretest and posttest made a median of slightly over 3 months comprehension gain for each month enrolled in the Program. Students who took C2 for their pretest and C1 for their posttest had a median gain rate of 2.3.

These 889 appropriately tested students (718 in the C2-C2 group and 171 in the C2-C1 group) together constituted 90% of all students served by the Intermediate Program. The 681 students clearly eligible for service constituted 69% of the total Intermediate group. Although clearly instruction-eligible ("Elig.") students were only three-fourths as numerous as the total group of "All" appropriately tested students, within a given test group (C2-C2 vs. C2-C1) the median and mean gain rates were nearly identical for the "Elig." and "All" categories.

The objectives of the Intermediate Program also specified categories of gain that would be attained by different proportions of students: 25% were supposed to fall into the highest category, 1.4 or more months gain per Program month; 25% were to gain at the rate of 1.0-1.3; and the remaining 50% were expected to gain less than 1.0 month in reading skill per Program month.

As shown in Table 4, regardless of the testing procedure used, about three times as many of the Intermediate students as expected fell into the highest category of gain rate. Again, the use of the same form for pretest and posttest was associated with higher proportions of students meeting the objectives than the use of different, equivalent forms.

This general pattern of reading gain results for the Intermediate Program obtained for both (a) all students, regardless of pretest score; and (b) instruction-eligible students only, whose pretest grade scores were at least one year below their grade placement at pretest time.

Also, this pattern of results held not only for the total Intermediate group, but also for individual schools. Each Intermediate Program school had a median gain rate at least twice the 1.0 that was expected. Each school had two-thirds or more of its students in the highest gain rate category, 1.4 or more months gain per Program month. And when separate groups of 20 or more students within a school had a C2-C2 test sequence vs. a C2-C1 test sequence, the C2-C2 group fared generally better than the C2-C1 group on indices of reading gain.

Differences among schools in average gain rates. The evaluative comparison of average gain rates among Intermediate Program schools must be approached with caution.

First, since all schools met their objectives for reading gain, schools that occupy the lower ranks in a distribution of mean gain rates should not necessarily be evaluated negatively.

Second, the gain rate statistic seems unstable, even for subgroups of students. The range of mean gain scores is large. If one ignores differences among subgroups in tests used and in eligibility for instruction, the highest mean gain rate by any subgroup in Table 4 was 7.5, for the 37 appropriately tested (C2-C2) students at School 25. The lowest rate was 2.1, made by both the 36 C2-C1 students at School 1 and the 20 instruction-eligible C2-C2 students at School 13.

The subgroup standard deviations are also generally large. The overall standard deviation of scores, 4.6, includes the value zero, even though only 6% of students had gain rates of zero or less.

The distribution of individual student gain rates is positively skewed by small numbers of very high scorers. For nearly every subgroup, the mean gain rate exceeds the median, usually by at least one-half a month. The positive skew of gain rates seems attributable to the 14% of Intermediate students with near-perfect scores of 43 or more correct answers out of a possible 48 on the Gates C posttest. These raw scores corresponded to grade scores of 6.0-7.0.

Despite the hazards in so doing, schools with relatively high and low mean gain rates will be singled out for later discussion. The mean rate of comprehension gain over all test and instruction-eligibility groups in the Intermediate Program was 3.7. Four schools--8, 25, 26, and 27--had mean gain rates at least one grade-score month higher than the overall mean. These schools will be called "higher-gain schools." Three other schools--3, 9, and 13--had mean gain rates at least one grade-score month lower than the overall mean. These schools will be called "lower-gain schools."

Attainment of Objectives by the Junior High Reading Program

Two sets of objectives were established for the Junior High Reading Program. Objective Set I applied to those 342 students entering the Program with pretest scores of 3.9 or less. Objective Set II applied to the 394 students with pretest scores of 4.0-6.0.

Objective Set I was met by both the total group of public-school Objective I students and the total group of non-public school students. Objective Set II was met by the total group of appropriate public school students but not by the Objective II students in nonpublic schools. Both sets of objectives were met in a majority of the individual Junior High Program schools for which reliable indices of reading gain rate could be determined.[3]

Objective Set I. Table 5 indicates that public-school Objective I students made a median gain of 1.7 months of comprehension gain per month in the Program; therefore, the obtained median approximated the median of 1.5 specified in the objectives. Nonpublic-school Objective I students gained at a rate of 4.1, a statistic diminished in importance because it was based on only 10 students.

Objective Set I also specified hope-for proportions of students in various categories of gain rate: 30% were to make 2.5 or more months gain per Program month; 15% were to gain at rates of 1.7-2.4; 30% were to gain at rates of 1.0-1.6; and the remaining 25% were to fall below a 1.0 rate. In fact, the rate distribution obtained for 146 appropriately tested public-school students very closely approximated the distribution specified in the objectives. The discrepancies between the hoped-for proportions and the obtained proportions ranged from .02 to .12. In nonpublic schools, 8 of the 10 appropriately tested Objective I students were in the highest gain-rate category.

Objective Set II. Table 6 shows that public-school Objective II students made a median gain of 3.1, thereby exceeding the hoped-for median of 2.5. The obtained median of 1.8 for nonpublic school Objective II students failed to meet this objective of 2.5 months gain per Program month.

Objective Set II also specified that 30% of the Objective II students should make 4.0 or more months gain per Program month; 15% should make 2.7-

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[3]Table 5 presents results separately only for those schools with 19 or more Objective I students; Table 6, only for schools with 20 or more Objective II students. Results based on fewer students were judged too unstable for separate tabulation. In addition, frequency distributions (and for appropriately tested students, other descriptive statistics) are presented only for those C2-C2 and D2-D2 test subgroups numbering 8 or more. The results for total groups of public and nonpublic students in Tables 5 and 6 are based on all such students with complete test and enrollment data, even students whose schools were omitted from tabular presentation.

3.9 months gain per Program month; 30% should gain at rates of 1.0-2.6; and the remainder would therefore gain at less than a 1.0 rate. For public-school Objective II students, the obtained rate distribution closely approximated the distribution specified in the objectives. Discrepancies between obtained and hoped-for proportions in each gain rate category ranged from .03 to .12. In nonpublic schools, however, nearly half of the Objective II students fell into the 1.0-2.6 gain rate category, a fact accounting for the low median rate among this group.

Differences among schools in attainment of reading objectives. Unlike the Intermediate Program schools, not every Junior High program school met its objectives for reading gain. The evaluator sought some reasonable criteria to differentiate those junior high schools that had most successfully met their ESAA reading objectives from those that had least successfully met their objectives. In the evaluator's judgment, clear evidence that a particular school had or had not met its reading objectives could exist only when the school's ESAA instruction served a sizeable group of students and when those students had also been appropriately tested with a C2 or D2. The evaluator therefore decided to make qualitative judgments regarding success only among junior highs (a) having Objective I or Objective II groups each numbering 19-20 and (b) having at least 8 Objective I students or 8 Objective II students who were appropriately tested. Using these criteria, only 3 of 8 public junior highs--Schools A, D, and F--clearly met Objective I. Four public junior highs--B, D, F, and H--clearly met Objective II.

Only in School F did appropriately tested Objective I and Objective II students meet their respective sets of objectives. Also, only for School G was there clear evidence that Objective I and Objective II students had both failed to meet their objectives.

Factors Possibly Accounting for Differences Among Students and Schools in Reading Gain Rates

In this section a number of factors that might plausibly account for differences in reading gain will be considered. To anticipate the discussion, only two factors--variations in testing procedure and length of time in the program--were importantly related to reading gain rates.

The following additional factors were considered separately for students in the Intermediate and public school Junior High programs and found to have no important relationship with gain rate: the number of

supplementary materials used, the frequency of use of teacher-made materials, pretest grade score, percent attendance while in the Program, student's grade placement level, and whether or not the student was bussed to school.

An "important relationship with gain rate" was defined as a Pearson correlation between gain rate and a given variable accounting for at least 6% of the variance (r=.25 or more, ignoring sign).

Even the frequency of use of Dorsett and Basic Skills lessons was not consistently related to gain rate. For Intermediate Program students, gain rate was uncorrelated with the number of times per week students used Dorsett or Basic Skills lessons. In public Junior High program schools, however, students with the highest gain rates tended to use Dorsett materials more frequently and Basic Skill lessons less frequently (r's=.37 and -.46 between gain rate and the frequency of use of Dorsett and Basic Skills lessons, respectively). These correlations, however, probably do not indicate that use of Dorsett lessons promoted reading gain more than use of Basic Skill lessons. Instead, these correlations probably indicate only that students having the greatest difficulty learning to read (those with the lowest rates) tended to be assigned Basic Skill lessons, whereas students having less difficulty (high rate students) tended to be assigned Dorsett lessons.

Again the evaluator can point to only two Program factors--testing procedure and duration of ESAA enrollment--that have important, independent relationships with reading gain rates.

The effect of testing procedure variations on measures reading gain. As noted above, the evaluator had in the previous year's evaluation of the ESAA Reading Program (Higgins, 1974c) suggested the use of different, equivalent test forms for pretest and posttest to achieve a balanced research design (p. 26). The basis for this suggestion was some students whose reading gains were implausibly large considering their short stay in the ESAA reading program (pp. 21-22). The evaluator suggested that such results might be attributed to remembering comprehension passages from pretest to the identical posttest.

This suggestion for alternate forms was not followed, and this year, as last, ESAA students generally used identical forms for pretest and posttest. The only exception was the Intermediate Program, where subgroups of students in Schools 1, 7, 8, 13, 14, 15, 17, 19, and 25 took C2 as a pretest and C1 as a posttest. Other subgroups in the same schools took C2 for both pretest and posttest.

By comparing the gain rates of C2-C1 and C2-C2 subgroups in schools where both pre-post test procedures were followed, the evaluator hoped to determine the effect on these rates of taking alternate vs. identical test forms. On the basis of the previous year's evaluation cited above, the evaluation suspected that reading gains of C2-C2 students might be higher than those of C2-C1 students.

The comparison of gain rates of C2-C1 and C2-C2 students is clouded, however, because the C1 Comprehension Test is apparently slightly more difficult than the C2 Comprehension Test.

The Technical Manual for the tests (Gates & MacGinitie, 1965b) describes C Form 1 and C Form 2 as "paralled forms" (p. 7). For norm samples of over 1000 3rd graders taking each 48-item form, however, the Form 1 Comprehension Test (mean raw score=23.2) was 1.5 correct answers more difficult than the Form 2 Comprehension Test (mean raw score=24.7). While the standard deviations are the same (10.8 for Form 1, 10.7 for Form 2), unless the means are also equal, the two tests cannot, strictly speaking, be called parallel or equivalent tests.

The test authors ignored the apparent nonequivalence of the C1 and C2 Comprehension Tests in constructing both (a) the raw to standard score conversion table and (b) the raw to grade score conversion table (Gates & MacGinitie, 1965a, p. 8). For a given Comprehension raw score, these conversion tables assign the same grade score (or the same standard score) whether the student took the C1 or the C2.

To attempt a fair comparison between gain rates based on C2-C1 vs. C2-C2 testing, the evaluator added 1.5 raw score points (correct answers) to each C1 posttest score.[4] The test authors' raw to grade score conversion table was then used to compute Comprehension gain, and then gain rate. The evaluator's corrections resulted in from 0 to 6 months being added to each C1 grade score; 43 of the 48 corrections were included in the range from 0.5 months to 4 months.

Table 7 compares C2-C2 Comprehension gain rates with C2-C1 gain rates based on corrected vs. uncorrected C1 scores. If C1 raw scores are accurately corrected by adding 1.5 points acorss-the-board, then Table 7 suggests that it matters little whether identical or different forms are used to measure gain rates.

[4]The evaluator is indebted to Lary Johnson for pointing out the non-comparability of C2-C2 and C2-C1 gain rates. The evaluator, however, takes responsibility for the method of correction used here.

The 400 C2-C2 students had a gain rate of about 4 grade score months per month enrolled; the 171 C2-C1 students, a corrected gain rate of 3.6 months per month.

If, however, as the test authors assert, C1 and C2 are in fact equivalent tests, and if no correction is needed to equate C1 and C2 scores, then reading gain rates based on identical pre- and post-test forms may be importantly higher (0.7 months per month, according to Table 7) than reading gain rates obtained using different test forms.

Based on this small-scale investigation of gain rates based on identical vs. alternate pre-post testing, the evaluator is reluctant to conclude that the use of alternate forms in pre-post testing is generally unimportant. Given the circumstances similar to those of the present study, with C level testing of students with an initial average comprehension level of about 3, however, the use of alternate pre-post forms may be unnecessary.

A more adequate test of the importance of alternate form testing would, of course, have been to use C1 and C2 forms (as well as D1 and D2 forms when appropriate to the students tested) for both pretest and posttest, assigning one or the other test to students in a balanced design. A comparison of C1 and C2 (or D1 and D2) pretest scores could also help decide whether or not the two forms are equal in difficulty.

In the present investigation, the evaluator did not monitor whether the ESAA teachers did, as instructed, randomly assign C1 and C2 posttests to their students. The C2-C1 and C2-C2 test groups did, however, seem well matched in the means and standard deviations of their pretest scores.

One implication of Table 7 is that gain rates, when calculated as required by this evaluation design, are highly sensitive to slight differences in the difficulty of supposedly equivalent tests (or to slight changes in the scoring of a test).

In effect, Table 7 suggests that any factor (including scoring error, remembering previously answered items, or true gain in reading competence) that adds 1.5 points to each C1 raw post-score will automatically add 0.7 months to the mean reading gain rate, if these rates are based on C2-C1 pre-post testing.

Given the large variability in reading gain rates shown in Table 7 (and elsewhere in this report), and given also the large fluctuations in rate that can result from 1 or 2 point changes in raw scores, the evaluator suggests that objectives for reading gain be stated in terms other than

Table 7

The Effect on Comprehension Gain Rates of Using Identical vs. Different Gates-MacGinitie C-Level Forms, Including a Correction for Apparent Difficulty Differences Between the Test Forms

Variable or Statistic	Student group			
	C2-C2 Pretest=Primary C, Form 2 Posttest=Primary C, Form 2 N=400		C2-C1 Pretest=Primary C, Form 2 Posttest=Primary C, Form 1 N=171	
	Mean	Std. dev.	Mean	Std. dev.
Pretest grade score	3.1	0.9	3.0	1.0
Months enrolled[a]	4.4	1.8	4.7	2.2
Posttest grade score	4.4	1.1	Uncorrected C1 posttest: 4.1	1.1
			Corrected[b] C1 posttest: 4.3	1.2
Reading gain rate	3.97	6.44	Uncorrected rate: 2.92	3.48
			Corrected[b] rate: 3.62	3.88

t test for independent means and unequal variances

t	t based on uncorrected[b] rate
	t=2.52 (df=539, p=.01, 2-tailed)
	t based on corrected[b] rate
	t=0.8 (df=506, p=.4, 2-tailed)

Notes.--Reading gain rate is defined as pre-to-posttest grade score divided by the number of months enrolled in the program.

These gain rate comparisons are based on the C2-C2 and C2-C1 subgroups at Schools 1, 7, 8, 13, 14, 15, 17, 19, and 25.

[a]"Months enrolled" is the number of enrolled days (including absences) between the pretest and the posttest, divided by 17.9, the average number of days in a school month.

[b]To correct for the probable greater difficulty of C1 over C2 tests, 1.5 raw score points were added to each C1 test score before calculating grade score and gain rate.

monthly grade-equivalent improvement.

The effect of months enrolled in the Program on reading gain. Among appropriately tested students in both the Intermediate Program and the public-school Junior High Program, gain rate was negatively correlated with months enrolled in the Program (r was approximately -.30 for each program). In general, the longer a student was enrolled in a program, the lower was that student's reading gain rate. The negative correlation between gain rate and months in the Program also obtained for C2-C1 students (r=-.34), suggesting that the remembering passages from pretest to posttest, while a possible determinant of reading gain, cannot explain this specific association between lower rates and longer enrollment periods.

One plausible explanation for the negative relationship between gain rate and enrollment duration is that after a certain duration, further attendance in the ESAA class produces diminishing returns. To support this explanation, in the four Intermediate Program schools with the highest gain rates (Schools 8, 25, 26, and 27), the mean number of months enrolled in the Program ranged from 3.2-4.0 (see Table 3). In the three "lower-gain schools" (3, 9, 13) the mean enrollments were between 5 and 7 months. In the Junior High Program, School F students, who generally met both Objectives Sets I and II, had a mean enrollment period nearly one month shorter than students in School G, who generally failed to meet their reading objectives.

The use of reading materials to supplement the Dorsett and Basic Skill lessons. One might have supposed that the use of a variety of reading materials to supplement Dorsett and Basic Skill lessons would maintain student interest and promote reading gain. Among both Intermediate and public-school Junior High Program students, however, gain rate was uncorrelated with the number of different supplementary materials used. Also, "higher-gain" and "lower-gain" Intermediate Program schools were not different in the mean number of supplementary materials used by each school's students. In the Junior High Program, the relatively more successful students of School F each used an average of only one supplementary material; the relatively less successful students of School G used an average of 5 different materials.

As discussed earlier (p. 13), the most common supplement to machine-programmed lessons were teacher-made materials. Again, however, the gain rates of ESAA students or Schools were not related to the frequency with which they used these teacher-made materials.

The possibility that teacher differences account for differences in reading gain rates. School G was the only school that clearly failed to meet both sets of Junior High Program reading objectives during 1974-75. During the previous 1973-74 school year, however, School G was among those schools with the highest gain rates for Objective I and Objective II students (Higgins, 1974c, pp. 22-23). In 1973-74, the School G median gain rates for Objective I and Objective II students were 2.8 and 4.5, respectively. In 1974-75, the School G corresponding median rates were 1.8 and 2.0. For all public school Junior High Program students, the median gain rate for Objective I students decreased slightly from about 2.5 in 1973-74 to 1.7 in 1974-75, whereas the median gain rate for all public school Objective II students stayed the same, slightly over 3.

Between 1973-74 and 1974-75, there was a change in the ESAA teacher (and aides) assigned to School G. The 1973-74 teacher was an attractive personality who provided a smorgasbord of materials and individualized attention to students (see Higgins, 1974c, p. 24). A few of last year's students, who had completed all their Basic Skill and Dorsett lessons, even attempted to "flunk" their ESAA posttest, hoping to remain in this rewarding class.

The evaluator is not aware of any differences in School G between 1973-74 and 1974-75 in either the characteristics of the entire school or the selection procedure for the ESAA Program. This year's ESAA teacher inherited most of the materials prepared by last year's teacher. Apparently, these supplementary materials were used in 1974-75, but perhaps not with the same effect. The possibility exists, therefore, that differences in teacher (and aide) skill and reward value account for some of the observed differences between School G's 1973-74 and 1974-75 gain rates.

RECOMMENDATIONS

Even though federal and local decisions have already been made to discontinue the ESAA Intermediate and Junior High reading programs, the evaluator offers the following suggestions in the hope they will be useful to those who plan and seek funding for similar programs.

The first four recommendations should be implemented in the event that the ESAA reading programs, or highly similar programs, are funded in the future.

1. All important materials that will be used in the reading program should be available at the start of the school year. In the Intermediate Program, Basic Skill lessons were not placed in the schools until mid-year. This delay in the availability of Basic Skill materials seemed to greatly hinder their use and usefulness. (See pp. 9-11.) If new reading programs such as ESAA are funded, materials should be ordered early enough to be on hand when the program starts.

2. Teachers' desires to have a small budget so that they can select their own materials to supplement Dorsett and Basic Skill lessons should be considered. Nearly all ESAA teachers indicated that they used supplementary materials. And nearly all ESAA teachers indicated that it was at least "Moderately important" that they continue to have these supplementary materials. Furthermore, nearly all teachers felt it at least "Moderately important" that they personally select these materials for their own students. (See p. 48.)

3. In the future, teachers with certification in reading and/or considerable training in reading instruction should be recruited for reading programs. Only about one-third of the ESAA teachers had reading certification. About one-third of the teachers had taken two or fewer courses in reading; among these, four had taken no coursework in reading. (See pp. 18-19.)

4. Staff should carefully screen incoming students to insure that students selected are those for whom the reading program is intended. Although the great majority of 1974-75 ESAA students were well suited to the program, 9% of the Junior High Program students had pretest scores above the limit specified for program eligibility (see p. 15).

The following three recommendations are repeated from last year's evaluation (Higgins, 1974c, pp. 26-27):

5. Although the ESAA reading programs did a good job of recruiting Black Americans for staff positions, greater effort should be made to recruit Native Americans for any new reading programs. From 1973 to 1975 no Native Americans were employed as teachers or aides in ESAA reading programs.

6. Supplementary materials (and any newly developed Dorsett and Basic Skills lessons) should be reviewed to insure that they are multi-ethnic. Although the objectives of the ESAA reading programs did not specify the use of multi-ethnic materials, the adoption of such materials whenever possible would serve one purpose of the Emergency School Aid Act; namely, the promotion of interracial understanding.

7. A time-delay feature should be added to the Dorsett machine, so that a student who answers incorrectly receives not only a 1-second "error tone," but also a 10 or 15-second "time-out" period when further responding cannot advance the filmstrip. Two ESAA teachers noted that the error tone is not aversive for many students. Such students sometimes carelessly pressed the machine's buttons until the correct answer was located, and so progressed through the lesson without reading it. A time delay for incorrect answering would make random button pressing much more unpleasant and therefore less frequent.

The next two recommendations concern testing:

8. Different, equivalent forms of tests should be used for pre-post testing and the computation of reading gains. Data presented on pp. 31-35 suggest that the use of different vs. identical Gates-MacGinitie C-level forms may not affect reading gain rates. Further studies with greater experimental control are needed, however, to establish the equivalence of gain rates based on alternate vs. same-form pre-post testing. Until such controlled studies are undertaken, assessment of reading gains should use different forms of a given-level test for both pretest and posttest, in a balanced design.

9. Diagnostic reading tests, appropriate to the age group tested, should be used instead of the present Gates-MacGinitie single-score, survey-type reading tests. For ease of administration and scoring, paper-and-pencil diagnostic tests that can be group-administered, should probably be used. As discussed on p. 21, most ESAA teachers would like to use a diagnostic reading test instead of the present survey test. They have also indicated a willingness to spend the extra time needed to score and profile

such tests. In the evaluator's opinion, a carefully selected diagnostic test could provide a meaningful picture of students' reading strengths and weaknesses not now available with Gates tests. Such a test could also be used to assess reading comprehension gain rates, if required by an evaluation design. Teachers might therefore regard the collection of diagnostic test scores as useful in their own day-to-day planning and not just useful in screening students and summarizing their reading gains.

The next recommendation is not a suggestion for improving the ESAA reading programs or similar programs, but is instead a suggestion that the materials of the 1973-75 ESAA reading programs be preserved for future use:

10. Appropriate Minneapolis Schools personnel should prepare an inventory of all equipment and materials previously used in the ESAA reading programs. A procedure should then be established for (a) distribution of this equipment and materials to Minneapolis reading teachers and (b) the maintenance of the items in this inventory, particularly the Dorsett machines.

Based on the ESAA Project Applications for 1973-74 and 1974-75 (Office of Planning, Development and Federal Programs, Minneapolis Public Schools, 1973; and the ESAA Office, Minneapolis Public Schools, 1974), the evaluator believes that 214 Dorsett machines were purchased with ESAA funds from 1973 to 1975. These machines represent an investment of about $72,500. During 1974-75 a total of $5500 was budgeted for maintenance of these machines. Now that the ESAA reading programs have ended, the evaluator would suggest that these machines (and their accompanying Dorsett and Basic Skill lessons) be maintained in proper working order so that they may continue to be a valuable resource for Minneapolis Schools.

The final two recommendations concern future evaluation of experimental compensatory education programs in Minneapolis such as the ESAA reading programs considered in this report.

11. Wherever possible, the evaluation of programs like the ESAA reading programs should include control groups of students comparable to students served by the experimental program. Both this year and last year evaluations of the ESAA reading programs were able to state that ESAA students, in general, had met program objectives. Knowledge that the ESAA programs met their objectives had limited usefulness, in the evaluator's opinion, for two reasons: (a) The objectives may have been chosen arbitrarily, since there is no stated rationale for their selection. (b) There is no reference

group against whom the gains of the ESAA students can be compared.

To say that the ESAA programs were successful because students made "high" rates of gain would beg the question, "What is a 'high' rate of gain?" Gain rates are dependent on the specific formula used; i.e., both on the definition of "time in the program" and, judging from data presented in this report, on the particular testing procedure used to measure gain.

The specific formulas used to measure gain rate among ESAA students were not used with any other groups of Minneapolis compensatory education students. Without control groups administered the same fall and spring tests as ESAA students, one cannot confidently assert that the gain rates of ESAA students were higher than the gain rates of otherwise comparable Minneapolis compensatory education students either enrolled in non-ESAA reading programs or taught reading by their regular classroom teacher.

In short, given the evaluation design used in the present study, one cannot obtain data about the "goodness" of the ESAA programs relative to other reading programs.

12. Before another evaluation like the ESAA reading evaluation is begun, program staff should realistically consider: (a) What, if any, are the information needs of program staff? (b) What, if any, are the information needs of the funding agency? (c) What, if any, use will be made of results and recommendations arising from the evaluation?

In the evaluator's opinion, the mere availability of funds for evaluation does not justify conducting an evaluation. If the local program staff and the State or federal funding agency have no important information needs that can be served by an evaluator--then no evaluation should be contracted.

The evaluator has no reason to believe that the 1973-74 evaluation report was important to the Office of Education's decision to discontinue funding the Minneapolis ESAA reading programs. Both during 1973-74 and 1974-75 the ESAA reading programs generally met their objectives for comprehension gain among poor readers.

The 1972 Emergency School Aid Act [Sec. 710. (a) (15)] as interpreted in regulations written by Office of Education staff[5] requires only that ESAA project applications include a research design. The act, as interpreted, does not seem to require that an evaluation based on the proposed

design actually be completed; or if completed, that such an evaluation be read by Office of Education staff and used as a basis for subsequent years' program suggestions and funding.

[5]Goldberg, Herman R., Associate Commissioner, Office of Education. Memo and proposed regulations concerning applications for Emergency School Aid Act Funds. Washington, D.C., November 17, 1972.

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APPENDICES

Appendix A

Form 2
12/74 - IR

Minneapolis Public Schools
Student Information Form for 1974-75
ESAA Intermediate Reading Program

Contact Person
Paul Higgins, Project Evaluator
Tel. 348-6142 or 6140
Minneapolis Public Schools
807 N. E. Broadway
Minneapolis, MN 55413

(1-7) [ ][ ][ ][ ][ ][ ][ ] Student's code number
1 2 3 4 5 6 7

(8) Blank

(9) Student's grade placement during 1974-75. Check one:

___ 4th grade
___ 5th grade
___ 6th grade
___ 1 Ungraded upper elementary
___ 2 Other. Please specify: _____

(10) Student's sex:

___ 1 Male
___ 2 Female

Pretest Reading Comprehension Test Score (based on the Gates-MacGinitie test given at the time student enrolled in the ESAA remedial reading lab)

(11) Which pretest did the student take? Check one:

___ 1 Primary C, Form 2
___ 2 Survey D, Form 2 (student wrote on the test booklet)
___ 3 Survey D, Form 1M (student wrote on a separate machine-scorable answer sheet)
___ 4 Other test. Please specify: _____

(12-13) [ ][ ] Student's raw score on only the Comprehension part of the pretest

(14-16) [ ][ ] . [ ] Student's grade score on the Comprehension pretest

(17-20) [ ][ ] / [ ][ ] What was the date of the pretest?
month day

(21) Was the pretest given on the same approximate date that the student enrolled in the ESAA lab?

___ 1 Yes
___ 2 No. If the answer was "No," please explain:

_____

Posttest Reading Comprehension Test Score (based on the Gates-MacGinitie test given at the time student left the ESAA lab)

(22) Which posttest did the student take? Check one:

___ 1 Primary C, Form 2
___ 2 Survey D, Form 2
___ 3 Survey D, Form 1M
___ 4 Other test. Please specify: _____

(23-24) [ ][ ] Student's raw score on only the Comprehension part of the posttest

(25-27) [ ][ ] . [ ] Student's grade score on the Comprehension posttest

(28-31) [ ][ ] / [ ][ ] What was the date of the posttest?
month day

(32) Was the posttest given on the same approximate date that the student left the ESAA lab?

___ 1 Yes
___ 2 No. If the answer was "No," please explain:

_____

Attendance

Between the pretest and the posttest, and during that part of the school year that ESAA lab instruction was prescribed for the student--

(33-35) [ ][ ][ ] How many days was the student present in the ESAA remedial reading lab?

(36-38) [ ][ ][ ] How many days was the student absent from the lab, even though the student was scheduled to use the lab on those days?

(39) Describe the actual schedule by which this student used the ESAA lab (not the student's actual attendance). Check one:

___ 5 Every day, during that part of the school year that ESAA lab instruction was prescribed for the student.
___ 4 Three or four days a week. . .
___ 3 One or two days a week. . .
___ 2 Less than once a week. . .
___ 1 Other schedule. Please describe: _____

_____

Reading Materials Used by This Student

On those days when the student was present in the ESAA lab, how often did the student use each of the following materials? Rate the frequency with which the student used the material, by placing the appropriate number in the box to the left of the material:

5= Every day, or nearly so
4= Three or four days out of every five days attended
3= One or two days out of five
2= Less than one day out of five, but during at least several lab sessions
1= Only once or twice while in the lab
0= Never this year so far

(40) [ ] Commercial Dorsett Reading Program

(41) [ ] Minneapolis Basic Skills Reading Program

(42) [ ] Other commercially prepared materials designed to teach basic reading skills

(43) [ ] Teacher-made materials to teach basic reading skills

(44) [ ] High interest books with accompanying cassette narration

(45) [ ] Other books or paperbacks (not designed to teach reading and having no reading-related questions)

(46) [ ] Magazines

(47) [ ] Newspapers

(48) [ ] Other materials

(49) Did this student ride a bus to school as part of the Minneapolis Public Schools' desegregation plan?

___ 1 Yes
___ 2 No

(50) _____
do not fill in

Appendix B

Minneapolis Public Schools
Student Information Form
for the 1974-75 ESAA Junior High Reading Program

Form 2
12/74 - SR

Contact Person
Paul Higgins, Project Evaluator
Tel. 348-6142 or 6140
Minneapolis Public Schools
807 N. E. Broadway
Minneapolis, MN 55413

(1-7) [ ][ ][ ][ ][ ][ ][ ] Student's code number
1 2 3 4 5 6 7

(8) Blank

(9) Student's grade placement during 1974-75. Check one:

___ 7th grade
___ 8th grade
___ 9th grade
___ 1 Other, please specify: _____

_____

(10) Student's sex:

___ 1 Male
___ 2 Female

Pretest Reading Comprehension Test Score (based on the Gates-MacGinitie test given at the time the student enrolled in the ESAA reading class)

(11) Which pretest did the student take? Check one:

___ 1 Primary C, Form 2
___ 2 Survey D, Form 2 (student wrote on the test booklet)
___ 3 Survey D, Form 2M (student wrote on a separate machine-scorable answer sheet)
___ 4 Other test. Please specify: _____

_____

(12-13) [ ][ ] Student's raw score on only the Comprehension part of the pretest

(14-16) [ ][ ].[ ] Student's grade score on the Comprehension pretest

(17-20) [ ][ ]/[ ][ ] What was the date of the pretest?
month day

(21) Was the pretest given on the same approximate date that the student enrolled in the ESAA lab?

___ 1 Yes
___ 2 No. If the answer was "No," please explain:

_____

Posttest Reading Comprehension Test Score (based on the Gates-MacGinitie test given at the time student left the ESAA reading class)

(22) Which posttest did the student take? Check one:

___ 1 Primary C, Form 2
___ 2 Survey D, Form 2
___ 3 Survey D, Form 2M
___ 4 Other test. Please specify: _____

_____

(23-24) [ ][ ] Student's raw score on only the Comprehension part of the posttest

(25-27) [ ][ ].[ ] Student's grade score on the Comprehension posttest

(28-31) [ ][ ]/[ ][ ] What was the date of the posttest?
month day

(32) Was the posttest given on the same approximate date that the student left the ESAA lab?

___ 1 Yes
___ 2 No. If the answer was "No," please explain:

_____

Attendance

Between the pretest and posttest, and while the student was enrolled in the ESAA reading class--

(33-35) [ ][ ][ ] How many days was the student present in the ESAA reading class?

(36-38) [ ][ ][ ] How many days was the student absent from the ESAA reading class?

(39) Blank

Reading Materials Used by This Student

On those days when the student was present in the ESAA class, how often did the student use each of the following materials? Rate the frequency with which the student used the material, by placing the appropriate number in the box to the left of the material:

5= Every day, or nearly so
4= Three or four days out of every five days attended
3= One or two days out of five
2= Less than one day out of five, but during at least several ESAA class sessions
1= Only once or twice while in the ESAA class
0= Never this year so far

(40) [ ] Minneapolis Basic Skills Reading Program

(41) [ ] Commercial Dorsett Reading Program

(42) [ ] Other commercially prepared materials designed to teach basic reading skills

(43) [ ] Teacher-made materials to teach basic reading skills

(44) [ ] High interest books with accompanying cassette narration

(45) [ ] Other books or paperbacks (not designed to teach reading and having no reading-related questions)

(46) [ ] Magazines

(47) [ ] Newspapers

(48) [ ] Other materials

(49) Did this student ride a bus to school as part of the Minneapolis Public Schools' desegregation plan?

___ 1 Yes
___ 2 No

(50) _____
do not fill in

RT 5/75

(1-7) ☐☐☐☐☐☐☐
Do not write in space above

Appendix C
Minneapolis Public Schools
ESAA Reading Teacher Questionnaire
N=31 respondents
Entries on questionnaire are frequencies

Return to:
Paul Higgins (Tel. 348-6140)
Research and Evaluation Dept.
Minneapolis Public Schools
807 N. E. Broadway
Minneapolis, MN 55413

Your Teaching Situation

(8) What type of school do you work in? Check one:

0 1 An elementary school with grades K-3
6 2 An elementary school with grades 4-6
12 3 An elementary school with grades K-6
8 4 A junior high school 1 Parochial K-8
0 5 A senior high school 3 Parochial 1-8
0 6 Other. Please specify: 1 Parochial 9-12

(9) Are you a (check one)--

24 1 Full-time ESAA teacher?
6 2 Part-time ESAA tutor?
1 NA (not ascertained)

(10) Do you have Dorsett Program reading materials?

28 1 Yes
3 2 No

(11) Do you have Basic Skill Centers Program reading materials?

21 1 Yes
9 2 No 1 NA

(12) Do you have Dorsett vocabulary lessons?

14 1 Yes
16 2 No 1 NA

On a typical school day,

(13) How many hours each day do you spend teaching reading to ESAA students? Round your answer to the nearest ½ hour and write it in the box below:
☐ hours. (Note: We want the number of 60 minute hours, not the number of class periods. For example, if you worked 3 hours and 30 minutes you would write 4 hours.)
Mean=4.6
St. dev.=1.3

(14) How many hours each day do you spend teaching students other than ESAA students? Round to nearest ½ hour: ☐ hours.
Mean= .5
Std. dev.=1.1

(15) How many hours each day do you spend in school on activities other than teaching students? Round to nearest ½ hour: ☐ hours.
Mean=1.2
Std. dev.=1.0

(16) If you supervise one or more ESAA Reading Aides, how would you describe your working relationship with these Aides? Check one:

20 1 Excellent
6 2 Very good
0 3 Good
0 4 Fair
0 5 Poor 1 NA
4 6 I do not supervise any ESAA Reading Aides.

(17) Can you suggest any ways your relationship with your reading aides might be improved?

2 1 Yes
26 2 No 3 NA

(18-21) If you answered "Yes" to (17), what are your suggestions (please be brief):

Selection of Students for the ESAA Reading Program

Please answer below--

(22-25) How was the decision usually made to enroll a particular student in the ESAA reading program?

(26-30) What person(s) made this decision in most cases?

(31) Are there other remedial reading programs in your school (that is, other than the ESAA Reading Program, or reading instruction by a regular classroom teacher who doesn't specialize in reading)?

25 1 Yes
5 2 No
1 3 I don't know

(32-36) If you answered "Yes" to (31), please list these other remedial reading programs:

(37-41) Given the reading materials you now have, what students would you most like to have in the ESAA Reading Program in your school? Briefly describe the reading levels and reading problems of those students:

(42) In your opinion, is the ESAA Reading Program with teaching machines particularly well suited to poor readers who are also disruptive and hard to manage in a regular classroom:

15 1 Yes
5 2 No
10 3 I don't know 1 NA

(43) What proportion of your total ESAA student group came to the ESAA Reading Center mainly because they were disruptive and hard to manage in other classes, and not because they had severe reading problems? Check one:

0 1 All, or nearly all, of my ESAA students
0 2 More than half...
1 3 About half...
0 4 Less than half...
10 5 Very few...
17 6 None...

Miscellaneous Items

(44-48) Please list the classes or classroom activities that your ESAA students missed when they came to you for ESAA reading instruction:

If you have used the Dorsett machine, please answer the following questions:

(49) Would you favor building into the Dorsett machine a time delay for incorrect responding, so that a student pressing the wrong button must wait before another button press can advance the filmstrip?

24 1 Yes

2 2 No

5 NA

(50) Do you have any dissatisfactions with the Dorsett machine or its servicing?

15 1 Yes

14 2 No

2 NA

(51-54) If you answered "Yes" to (50), explain your dissatisfactions:

(55) If you are familiar with Dorsett materials at both level A and level AA, would you say that (check one):

2 1 Level AA lessons are generally harder than Level A lessons.

11 2 A lessons are generally harder than AA lessons.

5 3 A and AA lessons have about the same difficulty.

1 4 I don't know.

9 5 I am not familiar with Dorsett materials at both level A and level AA.

3 NA

(56) How often do you try to teach writing skills to your ESAA students?

5 1 Once a week or more

10 2 Less than once a week, but during at least several ESAA class sessions this year

8 3 Only once or twice this year

8 4 Never this year so far

Reading Tests for Students

(57) If we must measure reading-comprehension-gain next year as part of the ESAA evaluation, which of the following tests would you most favor? Check one:

3 1 Same tests as this year: the Gates-MacGinitie C and D level Comprehension Tests

2 2 Other level(s) of the Gates-MacGinitie Comprehension Tests. Please specify: _____

0 3 Other comprehension test by different author (for example, an appropriate-level Stanford Achievement Test). Name a test, if you wish: _____

19 4 A diagnostic reading test (for example, an appropriate-level Stanford Diagnostic Reading Test) that claims to measure (a) different types of reading comprehension and (b) other reading subskills. Name a diagnostic test, if you wish: _____

2 5 A test other than those specified above. Please name or describe: _____

5 6 I do not now have a favorite test.

(58) If we used a diagnostic test such as the Stanford Diagnostic Reading Test next year for the ESAA evaluation, would you be willing to score this test not only for Comprehension, but also for 5 or 6 other reading subskills? (You would probably spend 2 or 3 hours scoring and profiling a set of 30 tests.)

25 1 Yes

4 2 No

2 3 I don't know

(59) Can you suggest any other ways that the ESAA testing procedure might be improved next year?

14 1 Yes

17 2 No

(60-63) If you answered "Yes" to (59), what are your suggestions?

Reading Materials Other Than Dorsett or Basic Skill Centers Reading Programs

For each of the following types of supplementary reading material, please indicate:
a. Did you use this type of reading material with your ESAA students this year?
b. If you answered "Yes" to a, please name or describe the material (name published materials and briefly describe unpublished materials).

Reading Material	For each reading material listed in the left column, answer both Question a and Question b below--	
	a. Did you use this type of reading material with your ESAA students this year?	b. If you answered "Yes" to a, please name or describe the material (name published materials and describe briefly unpublished materials):
Commercially prepared materials (other than Dorsett or Basic Skill Centers programs) designed to teach basic reading skills	(64) 20 1 Yes 11 2 No	(8-11)
Teacher-made materials to teach basic reading skills (these may include materials you adapted from commercial sources or borrowed from other teachers)	(65) 24 1 Yes 7 2 No	(12-15)
High-interest books with accompanying cassette narration	(66) 21 1 Yes 10 2 No	(16-19)
Other books or paperbacks (not designed to teach reading and having no reading-related questions)	(67) 24 1 Yes 7 2 No	(20-23)
Magazines	(68) 13 1 Yes 18 2 No	(24-27)
Newspapers	(69) 6 1 Yes 25 2 No	(28-31)
Vocabulary materials (other than Dorsett)	(70) 17 1 Yes 14 2 No	(32-35)
Games and puzzles	(71) 29 1 Yes 2 2 No	(36-39)
Other materials	(72) 10 1 Yes 19 2 No 2 NA	(40-43)

Do not write in space below:

(73-79) Blank

(80) 1

Card 2

(1-7) Dup. card 1

See other side--

More Questions on Materials

(44) How important is it that you have extra reading materials to supplement the Dorsett and Basic Skill Centers reading lessons?

18 1 Extremely important
9 2 Moderately important
2 3 Slightly important
1 4 Not at all important
1 NA

(45) How important is it that you personally select the supplementary materials for your own ESAA students?

12 1 Extremely important
16 2 Moderately important
2 3 Slightly important
1 4 Not at all important

(46) Did you use any "multi-ethnic" reading materials, designed to promote understanding of, and respect for, different racial and ethnic groups?

15 1 Yes
16 2 No

(47-51) If you answered "Yes" to (46), please describe the multi-ethnic materials:

Your ESAA Training

You have had several ESAA training sessions, both before and during the school year. Some of these training sessions helped you use the Dorsett machines, the Dorsett lessons, and the Basic Skill Centers lessons. During other training sessions you shared ideas and problems with other ESAA teachers.

In general--

(52) How valuable were these ESAA training sessions to you?

13 1 Extremely valuable
12 2 Moderately valuable
3 3 Slightly valuable
0 4 Not at all valuable
3 NA

(53) Can you suggest any ways these training sessions might be improved?

14 1 Yes
16 2 No
1 NA

(54-58) If you answered "Yes" to (53), what are your suggestions? (Be brief)

Your General Suggestions

(59) Can you suggest any other ways that the ESAA Reading Program in your school might be improved next year?

25 1 Yes
6 2 No

(60-66) If you answered "Yes" to (59), what are your suggestions?

Personal Data

(67) What is your highest earned degree?

21 1 Bachelor's degree
9 2 Master's degree
1 3 Other. Please specify: _____

(68) Do you now hold tenure as a teacher in the Minneapolis Public Schools?

12 1 Yes
19 2 No

(69) Do you now hold Minnesota teacher certification in reading?

11 1 Yes
20 2 No

(70) If you answered "Yes" to (69), what type(s) of reading certificate do you hold (Elementary Remedial, Secondary Remedial, etc.)?

(71-72) In the blank below, write the number of different college or graduate-school courses in reading you have taken.

_____ courses. Mean=4.1 Std. dev.=2.9

(73) Your sex:

6 1 Male
24 2 Female 1 NA

(74) Your racial/ethnic group. (With which of the following racial/ethnic groups do you most closely identify as a member?) Check one:

26 1 White American
5 2 Black American
0 3 Native American (Indian American, First American)
0 4 Spanish-surnamed American (for example, Chicano, Puerto Rican, Latin American)
0 5 Asian American (for example, Chinese, Japanese, Korean)
0 6 Other. Please specify: _____

(75-79) Blank
(80) 2

RA 5/75
(1-7)

Your code number (do not write your name on questionnaire)

Minneapolis Public Schools
ESAA Reading Aide Questionnaire
N=32 respondents
Entries on questionnaire are frequencies

Return to:
Paul Higgins (Tel. 348-6140)
Research and Evaluation Dept.
Minneapolis Public Schools
807 N.E Broadway
Minneapolis, MN. 55413

Your Work Situation

(8) What type of school do you work in?
Check one: (based on all 33 aides)

0 1 An elementary school with grades K-3
7 2 An elementary school with grades 4-6
9 3 An elementary school with grades K-6
11 4 A junior high school
0 5 A senior high school
0 6 Other. Please specify:

2 Parochial K-8
3 Parochial 1-8
1 Parochial 9-12

(9) How many hours each typical day do you work with pay as an ESAA Reading Aide? Round your answer to the nearest 1/2 hour and write it in the box below:

☐ hours. (For example, if you are paid by ESAA for 7½ hours per day, you would write--

Mean=5.7
Std. dev.=1.7

8 hours.)

(10) How would you describe your working relationship with the ESAA Reading Teacher you assist? Check one:

24 6 Excellent
7 5 Very good
1 4 Good
0 3 Fair
0 2 Poor
0 1 Very poor

(11) Can you suggest any ways to improve your relationship with the ESAA Reading Teacher you assist?

2 1 Yes
30 2 No

(12-16) If you answered "Yes" to (11), what are your suggestions? (Please be brief.)

(17) How much do you enjoy your work as an ESAA Reading Aide? Check one:

24 1 Very Greatly
6 2 Greatly
1 3 Somewhat
0 4 Slightly
0 5 Not at all

1 NA (not ascertained)

(18) Are you dissatisfied in any way with any of the conditions of your employment? (For example, are you dissatisfied with Civil Service regulations or pay scales? Or do you have any beefs or gripes with your employer over working conditions, hours, duties, etc.)

7 1 Yes
25 2 No

(19-25) If you answered "Yes" to (18), please explain your dissatisfication(s):

(26) If the ESAA Reading Program were not funded next year, do you think you would have trouble finding another job?

2 1 Yes
12 2 No
17 3 I don't know

1 NA

(27-30) If the ESAA Reading Program is not continued, what will you probably do during the next school year?

Your Training

(31) Have you participated in any training sessions to prepare you for work as an ESAA Reading Aide?

28 1 Yes
4 2 No

(32) If you answered "Yes" to (31), how valuable were these training sessions to you?

14 1 Extremely valuable
11 2 Moderately valuable
3 3 Slightly valuable
0 4 Not at all valuable

(33) Can you suggest any ways the training for ESAA Reading Aides could be improved?

10 1 Yes
22 2 No

(34-40) If you answered "Yes" to (33) what are your suggestions? (Please be brief.)

Please answer questions on reverse side---

Your Job Activities

Please list what you consider your three most important job activities as an ESAA Reading Aide. Examples of such activities might include (a) encouraging or praising students, (b) keeping up-to-date records of student progress, (c) organizing and storing the reading materials, etc., etc.

(41-42) My most important job activity is:

_____

_____

(43-44) My second most important job activity is:

_____

_____

(45-46) My third most important job activity is:

_____

_____

(47) Do you now perform any job activities that you feel you should not perform?

1 1 Yes
31 2 No

(48-54) If you answered "Yes" to (47), please describe these job activities:

(55) Are there job activities you don't perform that you feel you should be performing as an ESAA Reading Aide? (Are there things you don't do that you should be doing?)

3 1 Yes
29 2 No

(56-62) If you answered "Yes" to (55), please describe these job activities:

Your General Suggestions

(63) Can you suggest any ways (other than those you have described in previous answers) that the ESAA Reading Program in your school might be improved next year?

10 1 Yes
11 2 No
2 NA

(64-73) If you answered "Yes" to (63), what are your suggestions?

Personal Information

(74) Your sex:

1 1 Male
30 2 Female
1 NA

(75) Your racial/ethnic group. (With which of the following racial/ethnic groups do you most closely identify as a member?) Check one:

26 1 White American
4 2 Black American
0 3 Native American (Indian American, First American)
0 4 Spanish-surnamed American (for example, Chicano, Puerto Rican, Latin American)
0 5 Asian American (for example, Chinese, Japanese, Korean)
1 6 Other. Please specify: _____

1 NA

(76-79) Blank
(80) 1